

EIC Search (Part II)

MRY

=> FIL REG

FILE 'REGISTRY' ENTERED AT 10:51:15 ON 27 JAN 2010
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=> D HIS

L1 FILE 'LREGISTRY' ENTERED AT 10:34:33 ON 27 JAN 2010
 STR

L2 FILE 'REGISTRY' ENTERED AT 10:36:49 ON 27 JAN 2010
 4 S L1

L3 FILE 'LREGISTRY' ENTERED AT 10:38:00 ON 27 JAN 2010
 STR L1

L4 FILE 'REGISTRY' ENTERED AT 10:38:55 ON 27 JAN 2010
 2 S L3

L5 FILE 'LREGISTRY' ENTERED AT 10:39:40 ON 27 JAN 2010
 STR L3

L6 FILE 'REGISTRY' ENTERED AT 10:40:17 ON 27 JAN 2010
 2 S L5

L7 459 S L5 FUL
 SAV L7 YAM732A/A

L8 FILE 'HCAPLUS' ENTERED AT 10:42:14 ON 27 JAN 2010
 509 S L7/P

L9 472 S 1808-2002/PY,PRY,AY AND L8

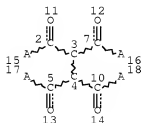
L10 56 S L9 AND P/DT

L11 416 S L9 NOT L10
 SAV L11 YAM732B/A

FILE 'REGISTRY' ENTERED AT 10:51:15 ON 27 JAN 2010

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L5 STR



NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 14

STEREO ATTRIBUTES: NONE
L7 459 SEA FILE=REGISTRY SSS FUL L5

100.0% PROCESSED 656433 ITERATIONS 459 ANSWERS
SEARCH TIME: 00.00.08

=> FIL HCAP

FILE 'HCAPLUS' ENTERED AT 10:51:47 ON 27 JAN 2010
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
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=> D L10 1-56 IBIB ABS HITSTR HITRN RETABLE

L10 ANSWER 1 OF 56 HCAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2004:566626 HCAPLUS Full-text
DOCUMENT NUMBER: 141:131022
TITLE: Electroluminescent materials and devices using a
diiridium acetylacetonate complex
INVENTOR(S): Kathirgamanathan, Poopathy; Price, Richard;
Ganeshamurugan, Subramaniam; Paramaswara,
Gnanamoly
PATENT ASSIGNEE(S): Elam-T Limited, UK
SOURCE: PCT Int. Appl., 50 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004058783	A1	20040715	WO 2003-GB5660	20031223
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W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2003290340	A1	20040722	AU 2003-290340	20031223
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EP 1578756	A1	20050928	EP 2003-782699	20031223
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EP 1578756	B1	20070613		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				

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3

JP 2006512388	T	20060413	JP 2004-563367	20031223
			<--	
AT 364612	T	20070715	AT 2003-782699	20031223
			<--	
US 20060269778	A1	20061130	US 2005-540732	20050725
			<--	
PRIORITY APPLN. INFO.:			GB 2002-30076	A 20021224
			<--	
			WO 2003-GB5660	W 20031223

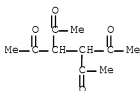
ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB The invention refers to an organic diiridium acetylacetonate complex used as an electroluminescent compound in electroluminescent devices.

IT 5027-32-7P, 3,4-Diacetyl-2,5-hexanedione
(electroluminescent materials and devices using diiridium acetylacetonate complex)

RN 5027-32-7 HCAPLUS

CN 2,5-Hexanedione, 3,4-diacetyl- (CA INDEX NAME)



IT 5027-32-7P, 3,4-Diacetyl-2,5-hexanedione
(electroluminescent materials and devices using diiridium acetylacetonate complex)

RETABLE

Referenced Author (RAU)	Year	VOL	PG	Referenced Work (RKY) (RVL) (RPG)	Referenced (RWK)	Referenced File
Anon				WO 0202714 A2		HCAPLUS
Anon				EP 1348711 A1		HCAPLUS

OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD (3 CITINGS)

L10 ANSWER 2 OF 56 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2002:573357 HCAPLUS Full-text

DOCUMENT NUMBER: 137:141929

TITLE: Hyper-branched fluorinated multifunctional alcohols and their derivatives for production of transparent coatings

INVENTOR(S): Wang, Fang; Xu, Chuck C.; Xu, Baopei; Potterbaum, Indira

PATENT ASSIGNEE(S): Telephotonics, Inc., USA; E.I. Du Pont De Nemours & Company

SOURCE: Eur. Pat. Appl., 12 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

January 27, 2010

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PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1227076	A2	20020731	EP 2002-1749	20020125
			<--	
EP 1227076	A3	20031015		
EP 1227076	B1	20060906		
			R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR	
US 20020115820	A1	20020822	US 2002-50184	20020118
			<--	
AT 338742	T	20060915	AT 2002-1749	20020125
			<--	
PRIORITY APPLN. INFO.:			US 2001-264200P	P 20010125
			<--	
			US 2002-50184	P 20020118
			<--	

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

OTHER SOURCE(S): MARPAT 137:141929

AB A fluorinated multifunctional alc. is synthesized from at least one core mol. having at least three equivalent of hydroxy-reacting functional groups and at least one fluorinated mol. having at least two hydroxyl groups. The fluorinated alcs. react further to produce multifunctional derivs., such as acrylates, epoxides or vinyl ethers, useful in preparation of transparent coatings. Thus, a mixture of multifunctional fluorinated alcs. was prepared by reacting 1,3,5-benzenetricarbonyl trichloride (1 equiv) and 1H,1H,8H,8H-perfluorotetraethylene glycol (4.5 equiv) at room temperature for 2 h in the presence of triethylamine. Acryloyl chloride was added to this mixture, and the reaction was carried out for 10 h at room temperature in the presence of diisopropylethylamine to afford acrylate macromonomers. The acrylates were mixed with benzoyl peroxide (0.5%), coated on a silicon substrate and heated at 90° for 2 h to form a thin transparent film.

IT 444023-86-3P
(hyper-branched fluorinated multifunctional alcs. and their derivs.
for production of transparent coatings)

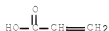
RN 444023-86-3 HCAPLUS

CN Fluorolink D 10, 1,1,2,2-ethanetetracarboxylate, 2-propenoate (9CI)
(CA INDEX NAME)

CM 1

CRN 79-10-7

CMF C3 H4 O2



CM 2

CRN 444023-85-2

CMF C6 H6 O8 . x Unspecified

CM 3

CRN 444023-61-4

CMF Unspecified

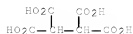
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 4

CRN 4378-76-1

CMF C6 H6 O8



IT 444023-85-2P

(hyper-branched fluorinated multifunctional alcs. and their derivs.
for production of transparent coatings)

RN 444023-85-2 HCAPLUS

CN Fluorolink D 10, 1,1,2,2-ethanetetra-carboxylate (9CI) (CA INDEX NAME)

CM 1

CRN 444023-61-4

CMF Unspecified

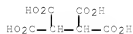
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 4378-76-1

CMF C6 H6 O8



IT 444023-86-3P

(hyper-branched fluorinated multifunctional alcs. and their derivs.
for production of transparent coatings)

IT 444023-85-2P

(hyper-branched fluorinated multifunctional alcs. and their derivs.
for production of transparent coatings)

RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
=====	+	-----	+	-----	+
Anon				IWO 0078819 A1	HCAPLUS
Anon				IEP 0851246 A1	HCAPLUS
Anon				IEP 1229352 A2	HCAPLUS
Anon				IWO 9846556 A1	HCAPLUS

OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS
RECORD (3 CITINGS)

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ACCESSION NUMBER: 1997:299360 HCAPLUS Full-text
 DOCUMENT NUMBER: 126:274245
 ORIGINAL REFERENCE NO.: 126:53081a,53084a
 TITLE: A method of determining oxygen in a sample using
 trityl derivative free radicals and Overhauser MRI
 INVENTOR(S): Ardenkjaer-Larsen, Jan Henrik; Leunbach, Ib
 PATENT ASSIGNEE(S): Nycomed Imaging A/S, Norway; Cockbain, Julian
 Roderick Michaelson
 SOURCE: PCT Int. Appl., 92 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 4
 PATENT INFORMATION:

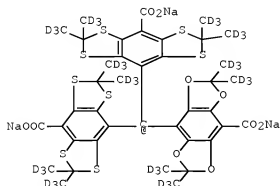
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9709633	A1	19970313	WO 1996-GB2198	19960906
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CA 2231405	A1	19970313	CA 1996-2231405	19960906
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AU 9668847	A	19970327	AU 1996-68847	19960906
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AU 717685	B2	20000330		
EP 871896	A1	19981021	EP 1996-929434	19960906
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EP 871896	B1	20020130		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI				
CN 1200179	A	19981125	CN 1996-197752	19960906
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JP 2002502491	T	20020122	JP 1997-510986	19960906
<--				
AT 212727	T	20020215	AT 1996-929434	19960906
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ES 2175123	T3	20021116	ES 1996-929434	19960906
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NO 9800965	A	19980428	NO 1998-965	19980305
<--				
US 6063360	A	20000516	US 1998-36021	19980306
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PRIORITY APPLN. INFO.:			GB 1995-18442	A 19950908
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			US 1995-546146	A 19951020
<--				
			GB 1996-12931	A 19960620
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			GB 1993-7027	A 19930402
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			WO 1996-GB2198	W 19960906
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			GB 1997-4669	A 19970306
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ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

OTHER SOURCE(S):

MARPAT 126:274245

GI



II

AB A method is disclosed for determining the oxygen concentration of a sample (e.g. animal body, human body) using ESR-enhanced magnetic resonance imaging (Overhauser MRI; OMRI). The invention is useful for providing a better understanding of the role of oxygen in metabolic processes and as an aid in clin. diagnosis in conditions which are linked to abnormal oxygen levels in the body. The method of the invention makes use of trityl derivative radicals I [n = 0-3; R1 = carboxyl, carboxyl derivative; R2 = H, optionally hydroxylated or alkoxyated C1-6 alkyl (alkoxy group may also be hydroxylated)] or salts, precursors, or deuterated analogs thereof, such as (II). Preparation of selected radicals I, and intermediates therefor, is described. Also presented is imaging of rat heart, brain, liver, and glandular tissue.

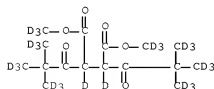
IT 175913-04-9P

(preparation and reaction; oxygen determination using trityl derivative radical and

Overhauser MRI, and radical preparation)

RN 175913-04-9 HCAPLUS

CN Butanedioic-2,3-d2 acid, 2,3-bis[2,2-di(methyl-d3)-1-oxopropyl-3,3,3-d3]-, di(methyl-d3) ester (9CI) (CA INDEX NAME)



IT 175913-04-9P

(preparation and reaction; oxygen determination using trityl derivative radical and

Overhauser MRI, and radical preparation)

RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Anon				EP 0467748 A1	HCAPLUS
Anon				IWO 9013047 A1	HCAPLUS

OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD (3 CITINGS)

L10 ANSWER 4 OF 56 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1997:9954 HCAPLUS Full-text

DOCUMENT NUMBER: 126:103842

ORIGINAL REFERENCE NO.: 126:20033a,20036a

TITLE: Process for reacting perfluoroalkyl iodides with α -olefinic compounds

INVENTOR(S): Deisenroth, Ted; Falk, Robert; Haase, Juerg

PATENT ASSIGNEE(S): Ciba-Geigy Corporation, USA

SOURCE: U.S., 6 pp., Cont.-in-part of U.S. Ser. No.

270,068, abandoned.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5585517	A	19961217	US 1995-420386	19950412
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EP 690037	A1	19960103	EP 1995-810422	19950622
			<--	
EP 690037	B1	19980506		
R: BE, CH, DE, ES, FR, GB, IT, LI				
ES 2117378	T3	19980801	ES 1995-810422	19950622
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CA 2152980	A1	19960102	CA 1995-2152980	19950629
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CA 2152980	C	20070410		
JP 08053378	A	19960227	JP 1995-166079	19950630
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JP 3782132	B2	20060607		
PRIORITY APPLN. INFO.:			US 1994-270068	B2 19940701
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			US 1995-420386	A 19950412
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ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

OTHER SOURCE(S): MARPAT 126:103842

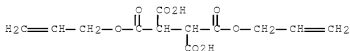
AB Perfluoroalkyl iodides are reacted with (un)substituted α -olefinic compds. (e.g., allyl alc., unsatd. carboxylic acids, etc.) using a free-radical addition reaction of the perfluoroalkyl iodide to the olefin in the presence of azoic or peroxy initiator and a water-soluble salt selected from the group consisting of sulfites, bisulfites, metabisulfites and dithionites. The adducts are obtained in high yield and purity and are useful for the preparation of oil- and water-repellent products (no data) for use on paper, textiles, metal, and wood (no data), or as precursors for fluorinated surfactants (no data).

IT 174822-35-6DP, addition reaction products with perfluoroalkyl iodides

(process for reacting perfluoroalkyl iodides with α -olefinic

compsd.)

RN 174822-35-6 HCAPLUS

CN 2,2,3,3-Butanetetra-carboxylic acid, 1,4-di-2-propen-1-yl ester (CA
INDEX NAME)

IT 174822-35-6DP, addition reaction products with perfluoroalkyl
iodides
(process for reacting perfluoroalkyl iodides with α -olefinic
compsd.)

RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Anon				EP 0194348 A2	HCAPLUS
Anon				EP 0438166 A2	HCAPLUS
Anon				US 3257407 A	HCAPLUS
Anon				US 4058573 A	HCAPLUS
Anon				US 4387254 A	HCAPLUS

OS.CITING REF COUNT: 7 THERE ARE 7 CAPLUS RECORDS THAT CITE THIS
RECORD (8 CITINGS)

L10 ANSWER 5 OF 56 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1996:385929 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 125:57922

ORIGINAL REFERENCE NO.: 125:11133a,11136a

TITLE: Preparation of substituted amide derivatives as
neoplasm inhibitorsINVENTOR(S): Iwasawa, Yoshikazu; Aoyama, Tetsuya; Kawakami,
Kumiko; Arai, Sachie; Satoh, Toshihiko; Monden,
Yoshiaki

PATENT ASSIGNEE(S): Banyu Pharmaceutical Co., Ltd., Japan

SOURCE: PCT Int. Appl., 136 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

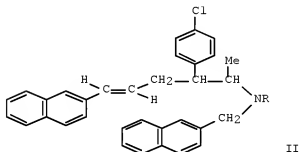
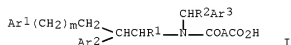
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9605168	A1	19960222	WO 1995-JP1588	19950810
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W: AU, CA, CN, JP, KR, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
AU 9531923	A	19960307	AU 1995-31923	19950810
			<--	
EP 776884	A1	19970604	EP 1995-928001	19950810
			<--	
EP 776884	B1	20000105		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL,				

PT, SE					
AT 188464	T	20000115	AT 1995-928001		19950810
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US 5643958	A	19970701	US 1996-616308		19960315
			<--		
PRIORITY APPLN. INFO.:			JP 1994-210646	A	19940811
			<--		
			JP 1995-109067	A	19950410
			<--		
			WO 1995-JP1588	W	19950810
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ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
 OTHER SOURCE(S): MARPAT 125:57922
 GI



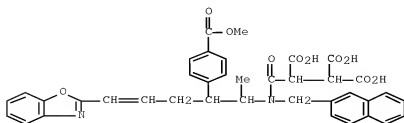
AB Amides [I; Ar¹, Ar², Ar³ = (un)substituted aryl, heteroaryl, R¹ = alkyl; R² = H, alkyl; A = (un)substituted hydrocarbyl; m = 1-6], effective protein farnesyltransferase (PFT) inhibitors useful as antitumor agents, are prepared
 Amidation of amine II (R = H) with [(chloroformyl)methyl]succinic anhydride and Et₃N in CH₂Cl₂ gave 74% amide II [R = COCH₂CH(CO₂H)CH₂CO₂H]. Three I showed IC₅₀ of 0.15-0.53 nM against PFT.

IT 178104-36-4P

(preparation of substituted amide derivs. as neoplasm inhibitors)

RN 178104-36-4 HCAPLUS

CN 1,1,2-Propanetricarboxylic acid,
 3-[[5-(2-benzoxazolyl)-2-[4-(methoxycarbonyl)phenyl]-1-methyl-4-penten-1-yl](2-naphthalenylmethyl)amino]-3-oxo- (CA INDEX NAME)



IT 178104-36-4P

(preparation of substituted amide derivs. as neoplasm inhibitors)

RETABLE

Referenced (RAU)	Author	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Anon					JP 5213992 A	
Anon					JP 5279290 A	

OS.CITING REF COUNT: 9 THERE ARE 9 CAPLUS RECORDS THAT CITE THIS RECORD (9 CITINGS)

L10 ANSWER 6 OF 56 HCAPLUS COPYRIGHT 2010 ACS ON STN

ACCESSION NUMBER: 1996:377052 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 125:58337

ORIGINAL REFERENCE NO.: 125:11217a

TITLE: Preparation and formulation of dihydrocarbostyryl derivatives as matrix metalloproteinase inhibitors
 Sakamoto, Makoto; Imaoka, Takeshi; Motoyama, Masaaki; Yamamoto, Sakahito; Takasu, Hideki

INVENTOR(S): Otsuka Pharma Co Ltd, Japan

PATENT ASSIGNEE(S): Jpn. Kokai Tokkyo Koho, 74 pp.

SOURCE: CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 3

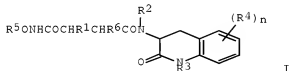
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08081443	A	19960326	JP 1994-216890	19940912
US 5594006	A	19970114	US 1995-389645	19950216
PRIORITY APPLN. INFO.:			JP 1993-58264	A 19930318
			JP 1993-256873	A 19931014
			JP 1994-216890	A 19940912
			US 1994-338600	B2 19941118

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

OTHER SOURCE(S): MARPAT 125:58337

GI



AB The title compds. I [R1 = H, etc.; R2 = H, alkyl; R3 = H, alkoxy, etc.; R4 = H, halo, etc.; R5 = H, benzoyl, etc.; R6 = alkyl, etc.; n = 1 or 2] are prepared 1-Benzyl-3S-[4-(N-hydroxyamino)-2R- isobutylsuccinyl]amino-3,4-

dihydrocarbostyryl (II) (preparation given) in vitro showed IC₅₀ of 3.9×10^{-7} M against type IV collagenase. II showed potent antimetastatic activity in mice with transplanted tumor.

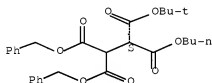
IT 177943-15-6P

(preparation of dihydrocarbostyryl derivs. as matrix metalloproteinase inhibitors)

RN 177943-15-6 HCAPLUS

CN 1,1,2,2-Ethanetetracarboxylic acid, 1-butyl 1-(1,1-dimethylethyl)
2,2-bis(phenylmethyl) ester, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 177943-15-6P

(preparation of dihydrocarbostyryl derivs. as matrix metalloproteinase inhibitors)

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS
RECORD (1 CITINGS)

L10 ANSWER 7 OF 56 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1995:806464 HCAPLUS Full-text

DOCUMENT NUMBER: 123:229377

ORIGINAL REFERENCE NO.: 123:40989a,40992a

TITLE: Manufacture of polyester-polyamides with good

moldability and resistance to heat and chemicals

INVENTOR(S): Morita, Takeharu; Yamagata, Kazuo

PATENT ASSIGNEE(S): Sekisui Chemical Co. Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 19 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 07165912	A	19950627	JP 1994-105522	19940519
JP 2003176350	A	20030624	JP 2002-367693	19940519
JP 3452563	B2	20030929		
JP 2003176351	A	20030624	JP 2002-367694	19940519
JP 3527736	B2	20040517		
PRIORITY APPLN. INFO.:			JP 1993-264868	A 19931022
			JP 1994-105522	A3 19940519

AB The polyester-polyamides are manufactured by dissolving 100 parts a mixture of polyester-forming alkanedioic acids and alkylene glycols with 3-250 parts

polyamide component, heating the above at 150-230° to form polyester component, then heating the resulting clear solution at 200-260° in vacuo, followed by heating the resulting liquid-phase polymerization resin at a temperature between T-30° to T (T = m.p. of resin) and ≤5 Torr to completion of solid-state polymerization optionally heating with 0.1-10 phr (based on resin) polyisocyanates or 0.1-5 phr polycarbodiimide compds. Thus, heating a mixture of adipic acid 146, butylene glycol 108, neopentyl glycol 125, nylon 6 150, (BuO)4Ti 0.25 part and stabilizers to 200° (.apprx.10 min), heating at 200° for 1 h while removing water, heating to 240° over 20 min while evacuating to below 1 mm-Hg (.apprx.10 min) and maintaining at this condition for further 1 h gave a polyester-polyamide (having intrinsic viscosity [η] in o-chlorophenol at 30° of 0.95) which was ground and solid-state polymerized at 190° and 0.5 Torr for 24 h to give a polyester-polyamide having [η] 1.95, Shore D hardness 39 and good mech. strengths.

IT 168020-56-4F

(manufacture of polyester-polyamides with good moldability and resistance to heat and chems.)

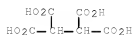
RN 168020-58-4 HCAPLUS

CN 1,1,2,2-Ethanetetra-carboxylic acid, polymer with 6-aminohexanoic acid, 1,4-butanediol, 2,2-dimethyl-1,3-propanediol and hexanedioic acid (9CI) (CA INDEX NAME)

CM 1

CRN 4378-76-1

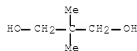
CMF C6 H6 O8



CM 2

CRN 126-30-7

CMF C5 H12 O2



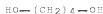
CM 3

CRN 124-04-9

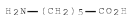
CMF C6 H10 O4



CM 4

CRN 110-63-4
CMF C4 H10 O2

CM 5

CRN 60-32-2
CMF C6 H13 N O2

IT 168020-58-4P

(manufacture of polyester-polyamides with good moldability and resistance to heat and chems.)

L10 ANSWER 8 OF 56 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1995:558578 HCAPLUS Full-text

DOCUMENT NUMBER: 123:289235

ORIGINAL REFERENCE NO.: 123:51777a,51780a

TITLE: Preparation of transparent polyester-polyamide elastomers with good chemical resistance and mechanical strength

INVENTOR(S): Yamagata, Kazuo; Morita, Takeharu

PATENT ASSIGNEE(S): Sekisui Chemical Co. Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	---	-----	-----	-----
JP 07062091	A	19950307	JP 1993-209654	19930824
			<--	
JP 3135427	B2	20010213		
PRIORITY APPLN. INFO.:			JP 1993-209654	19930824
			<--	

AB Title polyester-polyamides are prepared by (1) dissolving 5-25 parts polyamides with reduced viscosity 1.8-7.0 as a 1 g/dL-98% H2SO4 solution at 20° into 100 parts polyester-forming monomers including aliphatic dicarboxylic acids mainly containing adipic acid, aliphatic diols mainly containing neopentyl glycol and ethylene glycol and/or butylene glycol, and 0.1-2.5 mol% (based on aliphatic dicarboxylic acids) branching agents chosen from polyols having 3-6 OH groups, polycarboxylic acids having 3-4 carboxyl groups, and

comps. having both OH and CO₂H groups (total group number 3-6), (2) esterifying the polyester-forming monomers at 150-230°, and polymerizing the reactants at 200-260° under reduced pressure. Thus, adipic acid 161, butylene glycol 119, neopentyl glycol 137, T 850 (nylon 6; reduced viscosity 3.5) 40, pentaerythritol 0.75 part, and catalysts and stabilizers were heated to 200° under N₂, esterified for 1 h, heated to 240° with reducing pressure to ≤1 mmHg, and polymerized for 1 h to give a transparent polymer having surface hardness (Shore A) 67, intrinsic viscosity 1.50, m.p. = 197°, tensile breaking strength 260 kg/cm², and tensile breaking elongation 1500%.

IT 169672-92-8P

(rubber; preparation of polyester-polyamide elastomers)

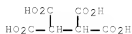
RN 169672-92-8 HCAPLUS

CN 1,1,2,2-Ethanetetracarboxylic acid, polymer with 1,4-butanediol, 2,2-dimethyl-1,3-propanediol, hexahydro-2H-azepin-2-one and hexanedioic acid (9CI) (CA INDEX NAME)

CM 1

CRN 4378-76-1

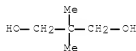
CMF C6 H6 O8



CM 2

CRN 126-30-7

CMF C5 H12 O2



CM 3

CRN 124-04-9

CMF C6 H10 O4



CM 4

CRN 110-63-4

CMF C4 H10 O2

HO—(CH₂)₄—OH

CM 5

CRN 105-60-2

CMF C6 H11 N O



IT 169672-92-8P

(rubber; preparation of polyester-polyamide elastomers)

L10 ANSWER 9 OF 56 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1995:558577 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 123:289234

ORIGINAL REFERENCE NO.: 123:51777a, 51780a

TITLE: Preparation of transparent polyester-polyamide elastomers with good chemical resistance and mechanical strength

INVENTOR(S): Yamagata, Kazuo; Morita, Takeharu

PATENT ASSIGNEE(S): Sekisui Chemical Co. Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 07062090	A	19950307	JP 1993-209653	19930824
			<--	
JP 3135426	B2	20010213		
PRIORITY APPLN. INFO.:			JP 1993-209653	19930824
			<--	

AB Title polyester-polyamides are prepared by (1) dissolving 25-250 parts polyamides with reduced viscosity 1.8-7.0 in 1 g/dL-98% H₂SO₄ solution at 20° into 100 parts polyester-forming monomers including (a) aliphatic dicarboxylic acids mainly containing adipic acid and (b) aliphatic diols mainly containing butylene glycol and neopentyl glycol, (2) esterifying the polyester-forming monomers at 150-230°, and (1) polymerizing the reaction mixture at 200-260° under reduced pressure. Thus, adipic acid 146, butylene glycol 108, neopentyl glycol 125, T 850 (nylon 6; reduced viscosity 3.5) 150 parts and catalysts were heated to 200° under N₂, esterified at 200° for 1 h, heated to 240° with reducing pressure to ≤1 mmHg, and polymerized for 1 h to give a transparent polymer having surface hardness (Shore D) 39, m.p. = 205°, intrinsic viscosity

0.95, tensile breaking strength 260 (at room temperature) and 130 kg/cm² (at 150°), elongation 1200 (at room temperature) and 900% (at 150°), and good chemical resistance.

IT 169672-92-8p

(rubber; preparation of polyester-polyamide elastomers)

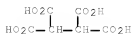
RN 169672-92-8 HCAPLUS

CN 1,1,2,2-Ethanetetra-carboxylic acid, polymer with 1,4-butanediol, 2,2-dimethyl-1,3-propanediol, hexahydro-2H-azepin-2-one and hexanedioic acid (9CI) (CA INDEX NAME)

CM 1

CRN 4378-76-1

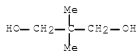
CMF C6 H6 O8



CM 2

CRN 126-30-7

CMF C5 H12 O2



CM 3

CRN 124-04-9

CMF C6 H10 O4



CM 4

CRN 110-63-4

CMF C4 H10 O2



CM 5

CRN 105-60-2

CMF C6 H11 N O



IT 169672-92-8P

(rubber; preparation of polyester-polyamide elastomers)

L10 ANSWER 10 OF 56 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1995:360632 HCAPLUS Full-text

DOCUMENT NUMBER: 122:292438

ORIGINAL REFERENCE NO.: 122:53323a, 53326a

TITLE: Manufacture of polyester-polyamides and their molding compositions

INVENTOR(S): Yamagata, Kazuo; Tokuoka, Kenji; Morita, Takeharu; Saito, Toranosuke; Kadomachi, Hironori; Kishimoto, Daishiro

PATENT ASSIGNEE(S): Sanko Kaihatsu Kagaku Kenkyusho KK, Japan; Sekisui Kagaku Kogyo KK

SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 06298932	A	19941025	JP 1993-221312	19930906
			<--	
JP 2945249	B2	19990906	JP 1993-28291	A 19930217
			<--	

PRIORITY APPLN. INFO.:

AB Title polymers, having good heat, oil, and water resistance, and good mech. properties, are manufactured by dissolving 20-70% polyamides having reduced viscosity (1 g/dL in 98% H₂SO₄, 20°) 1.8-7.0 dL/g in 30-80% monomers containing dicarboxylic acids mainly consisting of adipic acid (I), and diols mainly consisting of ethylene glycol (II) and/or butylene glycol; then esterifying the monomers at 150-230°, and polymerizing the mixts. under reduced pressure at 200-260°. Thus, a mixture of I 146, II 149, nylon 6 (reduced viscosity 2.2) 150, GeO₂ 0.2, 1,3,5-trimethyl-2,4,6-tris(3,5-di-tert-butyl-4-hydroxybenzyl)benzene 0.4, and tris(2,4-di-tert-butylphenyl) phosphite 0.4 g was heated at 200°, then at 240° under reduced pressure to give a polyester-polyamide with intrinsic viscosity 0.95 dL/g, tensile strength 250 kg/cm², and swelling 1.9% in JIS Number 3 oil and 5.0% in 1:1 toluene-isooctane mixture

IT 162960-31-8P

(heat- and oil- and water-resistant polyester-polyamides for moldings)

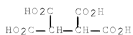
RN 162960-31-8 HCAPLUS

CN 1,1,2,2-Ethanetetra-carboxylic acid, polymer with 1,2-ethanediol,
 hexahydro-2H-azepin-2-one and hexanedioic acid, block (9CI) (CA INDEX
 NAME)

CM 1

CRN 4378-76-1

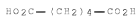
CMF C6 H6 O8



CM 2

CRN 124-04-9

CMF C6 H10 O4



CM 3

CRN 107-21-1

CMF C2 H6 O2



CM 4

CRN 105-60-2

CMF C6 H11 N O



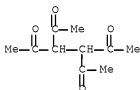
IT 162960-31-8P

(heat- and oil- and water-resistant polyester-polyamides for
 moldings)

L10 ANSWER 11 OF 56 HCAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 1993:559703 HCAPLUS Full-text
DOCUMENT NUMBER: 119:159703
ORIGINAL REFERENCE NO.: 119:28601a,28604a
TITLE: Method of obtaining 3,4-diacetylhexane-2,5-dione
INVENTOR(S): Elinson, Mikhail N.; Lizunova, Tatyana L.;
Nikishin, Gennadij I.
PATENT ASSIGNEE(S): Inst orch khimii im.n.d.zelinskogo, USSR
SOURCE: U.S.S.R. From: Izobreteniya 1992, (41), 87.
CODEN: URXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Russian
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
SU 1773902	A1	19921107	SU 1990-4809961	19900404
			<--	
PRIORITY APPLN. INFO.:			SU 1990-4809961	19900404
			<--	

AB A method for preparation of Ac2CHCHAc2 via oxidation of acetylacetone in organic solvent is improved, from the standpoint of yield, if the oxidation is carried out under electrolytic conditions in an electrolyzer without a diaphragm, in the presence of an electrolyte NaI/acetone at 0-10°, using 1.6-2.0 F per mol of starting acetylacetone.
IT 5027-32-7P, 3,4-Diacetylhexane-2,5-dione
(preparation of)
RN 5027-32-7 HCAPLUS
CN 2,5-Hexanedione, 3,4-diacetyl- (CA INDEX NAME)



IT 5027-32-7P, 3,4-Diacetylhexane-2,5-dione
(preparation of)

L10 ANSWER 12 OF 56 HCAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 1992:550567 HCAPLUS Full-text
DOCUMENT NUMBER: 117:150567
ORIGINAL REFERENCE NO.: 117:26077a,26080a
TITLE: Electrochemical method of preparation of
2,5-dioxohexane-3,4-dicarboxylic acid esters
INVENTOR(S): Elinson, M. N.; Lizunova, T. L.; Nikishin, G. I.
PATENT ASSIGNEE(S): Zelinskii, N. D., Institute of Organic Chemistry,
USSR
SOURCE: U.S.S.R. From: Izobreteniya 1992, (5), 91.
CODEN: URXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Russian
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
SU 1710545	A1	19920207	SU 1990-4809457	19900404
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PRIORITY APPLN. INFO.:			SU 1990-4809457	19900404
			<--	

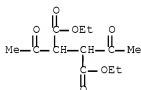
OTHER SOURCE(S): CASREACT 117:150567

AB Title esters $\text{MeCOCH}(\text{CO}_2\text{R})\text{CH}(\text{CO}_2\text{R})\text{COMe}$ [R = Me, Et] are prepared in increased yield by electrolysis of acetoacetate esters (1.4-1.5 F/mol) in acetone in an undivided cell in the presence of NaI or KI electrolyte at -20° to 0° .

IT 2049-86-7P, Diethyl 2,5-dioxohexane-3,4-dicarboxylate
 74536-45-1P, Dimethyl 2,5-dioxohexane-3,4-dicarboxylate
 (preparation of, by electrochem. dimerization of acetoacetate)

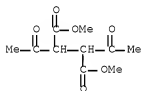
RN 2049-86-7 HCAPLUS

CN Butanedioic acid, 2,3-diacetyl-, 1,4-diethyl ester (CA INDEX NAME)



RN 74536-45-1 HCAPLUS

CN Butanedioic acid, 2,3-diacetyl-, 1,4-dimethyl ester (CA INDEX NAME)



IT 2049-86-7P, Diethyl 2,5-dioxohexane-3,4-dicarboxylate
 74536-45-1P, Dimethyl 2,5-dioxohexane-3,4-dicarboxylate
 (preparation of, by electrochem. dimerization of acetoacetate)

L10 ANSWER 13 OF 56 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1992:105629 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 116:105629

ORIGINAL REFERENCE NO.: 116:17871a,17874a

TITLE: Method for obtaining tetraalkyl esters of

1-alkoxyethane-1,1,2,2- tetracarboxylic acid

INVENTOR(S): Elinson, M. N.; Nikishin, G. I.; Fedukovich, S. K.

PATENT ASSIGNEE(S): Zelinskii, N. D., Institute of Organic Chemistry, USSR

SOURCE: U.S.S.R. From: Otkrytiya, Izobret. 1991, (15), 85

CODEN: URXXAF

DOCUMENT TYPE: Patent
LANGUAGE: Russian
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
SU 1643524	A1	19910423	SU 1989-4660062	19890309
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PRIORITY APPLN. INFO.:			SU 1989-4660062	19890309
			<--	

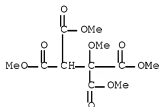
OTHER SOURCE(S): CASREACT 116:105629

AB (RO₂C)2CHCOR(CO₂R)2 (R = Me, Et) were prepared by electrolysis of solns. of dialkyl malonate Na salts or of their 1:1 mol. mixts. dialkyl malonates in corresponding alcs., in the presence of NaBr or NaI. The electrolysis was carried out by passing 2.0-2.2 F electricity per mol malonate at 40-55° in an electrolysis cell without membrane.

IT 110622-29-2P 113563-35-2P
(preparation of, by electrochem. alkoxylation of dialkyl malonate)

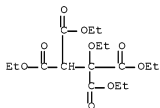
RN 110622-29-2 HCAPLUS

CN Butanetetracarboxylic acid, 2-methoxy-, 1,2,3,3-tetramethyl ester (CA INDEX NAME)



RN 113563-35-2 HCAPLUS

CN Butanetetracarboxylic acid, 2-ethoxy-, 1,2,3,3-tetraethyl ester (CA INDEX NAME)



IT 110622-29-2P 113563-35-2P
(preparation of, by electrochem. alkoxylation of dialkyl malonate)

L10 ANSWER 14 OF 56 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1992:42598 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 116:42598

ORIGINAL REFERENCE NO.: 116:7339a,7342a

TITLE: Lubricants for thermoplastics

January 27, 2010

10/540,732

23

INVENTOR(S): O'Lenick, Anthony J., Jr.
 PATENT ASSIGNEE(S): USA
 SOURCE: U.S., 12 pp. Cont.-in-part of U.S. Ser. No.
 228,214, abandoned.
 CODEN: USXXAM
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5045586	A	19910903	US 1989-345853	19890501
<--				
PRIORITY APPLN. INFO.:			US 1988-228214	B2 19880804
<--				

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB Internal lubricants for plastics (especially polycarbonates) are branched polyesters prepared from hydroxystearic acid (optionally alkoxyated) and polycarboxylic acids. Thus, acid-catalyzed esterification of the alc. C8H17CH(C10H21)CH2O(CH2CH2O)2CH2CHMeOCH2CH2OH with C6H13CH(OH)(CH2)10CO2H followed by adipic acid gave a branched ester which was used 0.025-1.0% in polycarbonate as a lubricant in extrusion and molding.

IT 138466-08-7P
 (preparation of, as internal lubricants for plastics)

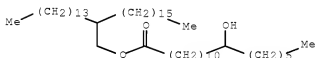
RN 138466-08-7 HCAPLUS

CN Oxirane, methyl-, polymer with oxirane, 1,1,2,2-ethanetetra-carboxylate (4:1), tetrakis[1-hexyl-12-oxo-12-[(2-tetradecyloctadecyl)oxy]dodecyl] ether, block (9CI) (CA INDEX NAME)

CM 1

CRN 177591-01-4

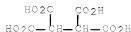
CMF C50 H100 O3



CM 2

CRN 4378-76-1

CMF C6 H6 O8



CM 3

CRN 106392-12-5
 CMF (C3 H6 O . C2 H4 O)x
 CCI PMS

CM 4

CRN 75-56-9
 CMF C3 H6 O



CM 5

CRN 75-21-8
 CMF C2 H4 O



IT 138466-08-7P

(preparation of, as internal lubricants for plastics)

RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
-----	-----	-----	-----	-----	-----
Anon				US 3773668 A	HCAPLUS
Anon				US 4143024 A	HCAPLUS
Anon				US 4868236 A	HCAPLUS

L10 ANSWER 15 OF 56 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1990:514656 HCAPLUS Full-text

DOCUMENT NUMBER: 113:114656

ORIGINAL REFERENCE NO.: 113:19415a,19418a

TITLE: Method of preparing hexaalkyl
 propane-1,1,2,2,3,3-hexacarboxylates

INVENTOR(S): Nikishin, G. I.; Elinson, M. N.; Fedukovich, S. K.
 PATENT ASSIGNEE(S): Zelinskii, N. D., Institute of Organic Chemistry,
 USSR

SOURCE: U.S.S.R. From: Otkrytiya, Izobret. 1990, (12),
 107.

CODEN: URXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Russian

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.

KIND DATE

APPLICATION NO.

DATE

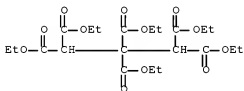
SU 1553529	A1	19900330	SU 1988-4381036	19880216
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PRIORITY APPLN. INFO.:			SU 1988-4381036	19880216
			<--	

AB (RO2C)2CHC(CO2R)2CH(CO2R)2 (I; R = Me, Et) were prepared by electrolysis of dialkyl malonates in a diaphragm-free electrolytic cell in an organic solvent in the presence of an alkali metal salt and a hydrohalic acid as the electrolyte at 50-80°. The yield of I and current efficiency were increased by using LiI as the alkali metal salt and MeCN as the solvent.

IT 5435-96-1P 28781-91-1P
(preparation of, by electrolytic coupling of dialkyl malonate)

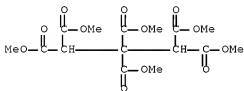
RN 5435-96-1 HCAPLUS

CN Pentanehexacarboxylic acid, 2,2,3,3,4,4-hexaethyl ester (CA INDEX NAME)



RN 28781-91-1 HCAPLUS

CN Pentanehexacarboxylic acid, 2,2,3,3,4,4-hexamethyl ester (CA INDEX NAME)



IT 5435-96-1P 28781-91-1P
(preparation of, by electrolytic coupling of dialkyl malonate)

L10 ANSWER 16 OF 56 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1990:138606 HCAPLUS Full-text

DOCUMENT NUMBER: 112:138606

ORIGINAL REFERENCE NO.: 112:23423a,23426a

TITLE: Improved process for reacting salts of
d,l-tartaric and maleic acid in the production of
ether carboxylate mixtures

INVENTOR(S): Bosch, Richard J.; Horng, Liou Liang

PATENT ASSIGNEE(S): USA

SOURCE: U.S., 8 pp.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4867901	A	19890919	US 1988-236496	19880824
EP 355806	A2	19900228	EP 1989-115548	19890823
EP 355806	A3	19901227		
R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
JP 02117640	A	19900502	JP 1989-217182	19890823
CA 1315291	C	19930330	CA 1989-609176	19890823
PRIORITY APPLN. INFO.:			US 1988-236496	A 19880824

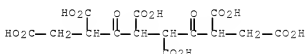
ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB Alkali metal salts of 1-hydroxy-3-oxa-1,2,4,5-pentanetetracarboxylic acid (I) and 3,6-dioxo-1,2,4,5,7,8-octanehexacarboxylic acid (II), useful as detergent builders and sequestering agents for metals (no data), are prepared by Ca²⁺-catalyzed reaction of salts of maleic and (±)-tartaric acid (III) in alkaline media at pH 7-12. A mixture of III, 50% NaOH, Ca(OH)₂, and CaCO₃ in H₂O was heated at 78° with stirring, Ca tartrate was added, followed by Ca maleate (preparation given), and the mixture heated at 85 ± 5°, H₂O added, the mixture cooled to 27°, the pH was reduced from 12.24 to 8.74 by HOAc, the filtrate was added to a solution of NaHCO₃ and Na₂CO₃ in H₂O at 55 ± 5°, stirred at 75 ± 5° and 85 ± 5°, and filtered to give 42.0 weight% I and 10.2 weight% II with 22.1 weight% Ca tartrate recovered.

IT 125960-37-4P
(preparation of, as detergent builder and metal sequestrant agent)

RN 125960-37-4 HCAPLUS

CN 1,2,4,5,7,8-Octanehexacarboxylic acid, 3,6-dioxo- (CA INDEX NAME)



IT 125960-37-4P
(preparation of, as detergent builder and metal sequestrant agent)

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Anon				US 2391297 A	HCAPLUS
Anon				US 3635830 A	HCAPLUS
Anon				US 3692685 A	HCAPLUS
Anon				US 3914297 A	HCAPLUS
Anon				US 4654159 A	HCAPLUS
Anon				US 4663071 A	HCAPLUS
Anon				US 4689167 A	HCAPLUS

L10 ANSWER 17 OF 56 HCAPLUS COPYRIGHT 2010 ACS on STN
 ACCESSION NUMBER: 1990:127844 HCAPLUS [Full-text](#)
 DOCUMENT NUMBER: 112:127844
 ORIGINAL REFERENCE NO.: 112:21489a,21492a

TITLE: Multifunctional compounds and electrolytic oxidative coupling
 INVENTOR(S): Noding, Stephen A.
 PATENT ASSIGNEE(S): Dow Chemical Co., USA
 SOURCE: U.S., 6 pp.
 CODEN: USXXAM
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4871430	A	19891003	US 1987-16595	19870219
			<--	
PRIORITY APPLN. INFO.:			US 1987-16595	19870219
			<--	

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
 OTHER SOURCE(S): CASREACT 112:127844; MARPAT 112:127844
 GI

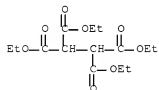


AB Multifunctional compds. of formula I are formed by electrochem. oxidation in a nitric solvent of a compound of formula II, in which R1 and R2 are independently selected from -CN, -CO2Et, -CO2H, -R4CO2Et, -CO2R4, and -CoMe; R3 = H, Br, or Et; and R4 = Cl-12 alkyl. The anode is a nonporous graphite impregnated with an electrode binder pitch, and the cathode is stainless steel, Ni, Fe, or Pt.

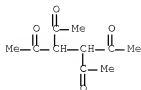
IT 632-56-4P, Tetraethyl 1,1,2,2-ethanetetra-carboxylate
 5027-32-7P 5464-22-2P, Tetramethyl 1,1,2,2-ethanetetra-carboxylate
 (preparation of, by electrolytic oxidative coupling)

RN 632-56-4 HCAPLUS

CN 1,1,2,2-Ethanetetra-carboxylic acid, 1,1,2,2-tetraethyl ester (CA INDEX NAME)

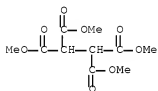


RN 5027-32-7 HCAPLUS
 CN 2,5-Hexanedione, 3,4-diacetyl- (CA INDEX NAME)



RN 5464-22-2 HCAPLUS

CN 2,2,3,3-Butanetetra-carboxylic acid, 1,2,3,4-tetramethyl ester (CA INDEX NAME)



IT 632-56-4P, Tetraethyl 1,1,2,2-ethanetetra-carboxylate

5027-32-7P 5464-22-2P, Tetramethyl

1,1,2,2-ethanetetra-carboxylate

(preparation of, by electrolytic oxidative coupling)

RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
=====	+	+	+	+	+
Anon				US 3759797 A	HCAPLUS
Anon				US 4405816 A	HCAPLUS
Anon				US 4411746 A	HCAPLUS
Anon				US 4434032 A	HCAPLUS
Anon				US 4457810 A	HCAPLUS

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L10 ANSWER 18 OF 56 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1990:55004 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 112:55004

ORIGINAL REFERENCE NO.: 112:9431a,9434a

TITLE: Catalytic process for preparing ethylenetetra-carboxylic esters

INVENTOR(S): Santi, Roberto; Cometti, Giuseppe

PATENT ASSIGNEE(S): Ufficio del Ministro per il Coordinamento delle Iniziative per la Tecnologica, Italy

SOURCE: Eur. Pat. Appl., 5 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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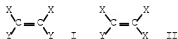
January 27, 2010

10/540,732

29

EP 330203	A1	19890830	EP 1989-103198	19890223
			<--	
EP 330203	B1	19921028		
R: BE, CH, DE,	ES, FR, GB, LI, NL			
US 4950785	A	19900821	US 1989-312932	19890221
			<--	
ES 2046346	T3	19940201	ES 1989-103198	19890223
			<--	
JP 02111744	A	19900424	JP 1989-46397	19890227
			<--	
JP 2812701	B2	19981022		
PRIORITY APPLN. INFO.:			IT 1988-19507	A 19880224
			<--	

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
 OTHER SOURCE(S): MARPAT 112:55004
 GI

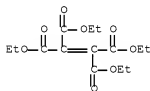


AB The title compds. I and II (X = CO₂R; Y = CO₂R₁; R, R₁ = organic group), useful as intermediates for pinacol derivs., were prepared by oxidative dimerization of XCH₂Y. Oxygen was bubbled for 8 h into a mixture of Mn(AcO)₃·2H₂O, AcONa, CH₂(CO₂Et)₂, AcOH, and Ac₂O at 100° to give 85% I (X = Y = CO₂Et).

IT 6174-95-4P
 (preparation of, as intermediate for pinacol derivs.)

RN 6174-95-4 HCAPLUS

CN 1,1,2,2-Ethenetetracarboxylic acid, 1,1,2,2-tetraethyl ester (CA INDEX NAME)



IT 6174-95-4P
 (preparation of, as intermediate for pinacol derivs.)

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L10 ANSWER 19 OF 56 HCAPLUS COPYRIGHT 2010 ACS on STN
 ACCESSION NUMBER: 1988:569870 HCAPLUS Full-text
 DOCUMENT NUMBER: 109:169870
 ORIGINAL REFERENCE NO.: 109:28159a,28162a
 TITLE: Preparation of hexaalkyl
 propane-1,1,2,2,3,3-hexacarboxylates

INVENTOR(S): Nikishin, G. I.; Elinson, M. N.; Fedukovich, S. K.
 PATENT ASSIGNEE(S): Zelinskii, N. D., Institute of Organic Chemistry,
 USSR
 SOURCE: U.S.S.R. From: Otkrytiya, Izobret. 1987, (45),
 252-3.
 CODEN: URXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Russian
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

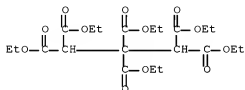
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
SU 1193973	A1	19871207	SU 1984-3719223	19840402
			<--	
PRIORITY APPLN. INFO.:			SU 1984-3719223	19840402
			<--	

AB Title compds. (RO2C)2CHC(CO2R)2CH(CO2R)2 (R = Me, Et) are prepared by electrolysis of malonic acid derivs. in a non-diaphragm electrolyzer in the presence of an organic solvent - an alc. and an electrolyte - at elevated temps. In order to increase the product yield, a malonic acid diester is used for electrolysis. A metal with low overvoltage for H is used as the cathode and a salt of hydrobromic acid as the electrolyte. The electrolysis is carried out at 45-55° and the quantity of electricity is 2.5 F per mol of the dialkyl ester. In a preferred embodiment, the cathode used is made of Fe or Cu and the electrolyte is LiBr or NaBr. The product yield can be improved further by carrying out the process in the presence of an alkali metal alcoholate.

IT 5435-96-1P 28781-91-1P
 (preparation of)

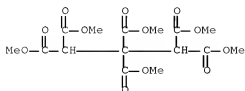
RN 5435-96-1 HCAPLUS

CN Pentanehexacarboxylic acid, 2,2,3,3,4,4-hexaethyl ester (CA INDEX NAME)



RN 28781-91-1 HCAPLUS

CN Pentanehexacarboxylic acid, 2,2,3,3,4,4-hexamethyl ester (CA INDEX NAME)



IT 5435-96-1P 28781-91-1P
(preparation of)

L10 ANSWER 20 OF 56 HCAPLUS COPYRIGHT 2010 ACS on STN
 ACCESSION NUMBER: 1987:466615 HCAPLUS Full-text
 DOCUMENT NUMBER: 107:66615
 ORIGINAL REFERENCE NO.: 107:10885a,10888a
 TITLE: Electrochemical process for preparing a tetraalkyl
 1,1,2,2-ethenetetracarboxylate
 INVENTOR(S): Noding, Stephen A.
 PATENT ASSIGNEE(S): Dow Chemical Co., USA
 SOURCE: U.S., 5 pp.
 CODEN: USXXAM
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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US 4659441	A	19870421	US 1986-840106	19860317
			<--	
PRIORITY APPLN. INFO.:			US 1986-840106	19860317
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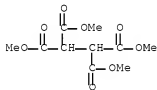
ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB Tetra-Me 1,1,2,2-ethenetetracarboxylate is prepared by the electrolysis of a liquid electrolysis medium containing di-Et malonate, an I- electrolyte, and MeOH. The electrolysis is run with a c.d. of .apprx.15-80 mA/cm2 and at a temperature of .apprx.25°-60°. The product was .apprx.80% pure with a yield of .apprx.20%.

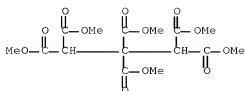
IT 5464-22-2P, Tetramethyl 1,1,2,2-ethanetettracarboxylate
 28781-91-1P
 (formation of, in electroprodn. of tetra-Me ethenecarboxylate)

RN 5464-22-2 HCAPLUS

CN 2,2,3,3-Butanetettracarboxylic acid, 1,2,3,4-tetramethyl ester (CA INDEX NAME)



RN 28781-91-1 HCAPLUS
 CN Pentanetettracarboxylic acid, 2,2,3,3,4,4-hexamethyl ester (CA INDEX NAME)

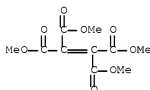


IT 1733-15-9P

(production of, electrochem.)

RN 1733-15-9 HCAPLUS

CN 1,1,2,2-Ethenetetracarboxylic acid, 1,1,2,2-tetramethyl ester (CA
INDEX NAME)



IT 5464-22-2P, Tetramethyl 1,1,2,2-ethanetetra-carboxylate

28781-91-1P

(formation of, in electroprodn. of tetra-Me ethenecarboxylate)

IT 1733-15-9P

(production of, electrochem.)

RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Anon				US 3661739 A	
Anon				US 3871976 A	HCAPLUS

L10 ANSWER 21 OF 56 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1987:439218 HCAPLUS Full-text

DOCUMENT NUMBER: 107:39218

ORIGINAL REFERENCE NO.: 107:6551a,6554a

TITLE: Preparation of diethyl

 α, β -diacetylsuccinate

INVENTOR(S): Xu, Wai; Zhao, Chuanxian

PATENT ASSIGNEE(S): Peop. Rep. China

SOURCE: Faming Zhuanli Shengqing Gongkai Shuomingshu, 5 pp.

CODEN: CNXXEV

DOCUMENT TYPE: Patent

LANGUAGE: Chinese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 85100416	A	19860709	CN 1985-100416	19850401
CN 85100416	B	19880127	--<	

PRIORITY APPLN. INFO.:

CN 1985-100416

19850401

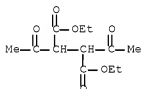
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AB EtO2CCH(COME)CH(COME)CO2Et (I), a flavor enhancer for foods (no data), is prepared via self-coupling of MeCOCHNaCO2Et. MeCOCH2CO2Et was added to Et2O containing Na at 20-25°, the mixture was allowed to react for 8 h, and an iodine solution in Et2O added at 20-30° gave I.

IT 2049-86-7P, Diethyl 2,3-diacetylsuccinate
(preparation of, from Et acetoacetate)

RN 2049-86-7 HCAPLUS

CN Butanedioic acid, 2,3-diacetyl-, 1,4-diethyl ester (CA INDEX NAME)



IT 2049-86-7P, Diethyl 2,3-diacetylsuccinate
(preparation of, from Et acetoacetate)

L10 ANSWER 22 OF 56 HCAPLUS COPYRIGHT 2010 ACS ON STN

ACCESSION NUMBER: 1987:50471 HCAPLUS Full-text

DOCUMENT NUMBER: 106:50471

ORIGINAL REFERENCE NO.: 106:8371a,8374a

TITLE: Polycyclo-palladium-bipyridine complexes having antitumor activity

INVENTOR(S): Newkome, George R.

PATENT ASSIGNEE(S): Research Corp., USA

SOURCE: U.S., 12 pp. Cont.-in-part of U.S. Ser. No. 447,109, abandoned.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

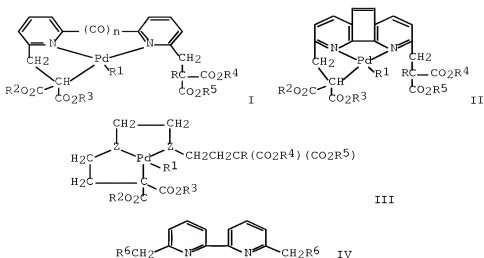
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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US 4598073	A	19860701	US 1983-518672	19830729
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PRIORITY APPLN. INFO.:			US 1980-141318	A1 19800418
			<--	
			US 1981-276047	A1 19810622
			<--	
			US 1982-447109	A2 19821206
			<--	

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

OTHER SOURCE(S): CASREACT 106:50471; MARPAT 106:50471

GI



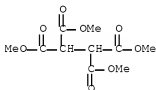
AB Pd complexes I-III [R = H; R1 = monovalent anionic ligand; RR1 = bond; R2-R5 = (fluoro substituted) alkyl, 2,2-dimethyl-1,3-dioxolan-4-ylmethylene; Z = O, S, or NR2; n = 0, 1], useful as antitumor agents, are prepared Pd bipyridine complexes I (RR1 = bond, same R2-R5, n = 0) were especially preferred. Thus, dipyrindine IV (R6 = Cl) was alkylated with (EtO2C)2CH2 to give IV [R6 = CH(CO2Et)2], which complexed with PdCl2(NCPh)2 to form I (RR1 = bond, R2-R5 = Et, n = 0) (V). The x-ray crystal structure of V was determined. The Pd complexes of the invention interacted with DNA, changing its buoyant d., and they supported DNA synthesis, thus indicating antitumor activity.

IT 5464-22-2F

(preparation and complexation of, with palladium)

RN 5464-22-2 HCAPLUS

CN 2,2,3,3-Butanetetra-carboxylic acid, 1,2,3,4-tetramethyl ester (CA INDEX NAME)

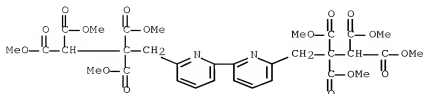


IT 99765-42-1P

(preparation of, as antitumor agent)

RN 99765-42-1 HCAPLUS

CN 1,1,2,2-Propanetetra-carboxylic acid, 3,3'-[2,2'-bipyridine]-6,6'-diylbis-, octamethyl ester (9CI) (CA INDEX NAME)



IT 5464-22-2P
(preparation and complexation of, with palladium)

IT 99765-42-1P
(preparation of, as antitumor agent)

OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS
RECORD (2 CITINGS)

L10 ANSWER 23 OF 56 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1987:35081 HCAPLUS Full-text

DOCUMENT NUMBER: 106:35081

ORIGINAL REFERENCE NO.: 106:5871a,5874a

TITLE: Dimerization by dehydrogenation

INVENTOR(S): Rauer, Kurt; Ziegler, Angelika

PATENT ASSIGNEE(S): Fed. Rep. Ger.

SOURCE: Ger. Offen., 19 pp.

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3503886	A1	19860807	DE 1985-3503886	19850206
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EP 190720	A1	19860813	EP 1986-101422	19860205
			<--	
EP 190720	B1	19881102		
R: BE, DE, FR, GB, IT, NL				
PRIORITY APPLN. INFO.:			DE 1985-3503886	A 19850206
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			DE 1985-3546134	A 19851224
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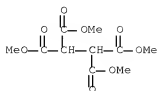
OTHER SOURCE(S): CASREACT 106:35081

AB Organic compds. with loosely bound H on a primary, secondary, or tertiary C are heated (100-180°, especially 120-150°) close to their b.p., and above the decomposition temperature of the dehydrogenation agent, which is a peroxy ketal [with 10 h half-life at <115° (in benzene)]. A reflux condenser and a condenser for the volatile decomposition products are assembled with the reactor. Thus, 32 g cumene was dehydrogenated (6 h) by adding (3 h) dropwise 38 g 1,1-bis(tert-butylperoxy)cyclohexane (in 80 g cumene) at 123°-141°. The product was biscumyl (28 g) with an 81% yield.

IT 5464-22-2P, Tetramethyl ethane-1,1,2,2-tetracarboxylate
(preparation of, by dehydrogenative dimerization)

RN 5464-22-2 HCAPLUS

CN 2,2,3,3-Butanetetracarboxylic acid, 1,2,3,4-tetramethyl ester (CA
INDEX NAME)



IT 5464-22-2P, Tetramethyl ethane-1,1,2,2-tetracarboxylate
(preparation of, by dehydrogenative dimerization)

L10 ANSWER 24 OF 56 HCAPLUS COPYRIGHT 2010 ACS on STN
 ACCESSION NUMBER: 1986:625464 HCAPLUS Full-text
 DOCUMENT NUMBER: 105:225464
 ORIGINAL REFERENCE NO.: 105:36391a,36394a
 TITLE: Dehydrogenative dimerization and/or polymerization
 of organic compound with active hydrogen atoms
 using perketals
 INVENTOR(S): Rauer, Kurt; Orner-Ziegler, Angelika
 PATENT ASSIGNEE(S): Luperox G.m.b.H., Fed. Rep. Ger.
 SOURCE: Eur. Pat. Appl., 32 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 190720	A1	19860813	EP 1986-101422	19860205
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EP 190720	B1	19881102		
R: BE, DE, FR, GB, IT, NL				
DE 3503886	A1	19860807	DE 1985-3503886	19850206
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DE 3546134	A1	19870702	DE 1985-3546134	19851224
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PRIORITY APPLN. INFO.:			DE 1985-3503886	A 19850206
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			DE 1985-3546134	A 19851224
			<--	

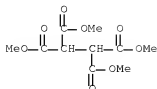
OTHER SOURCE(S): MARPAT 105:225464

AB Dehydrogenative dimerization or polymerization of organic compds. is carried out at 100-180° in inert solvents by using perketals. Thus, 32 g cumene was pretreated to .apprx.130° and then treated with 38 g 1,1-bis(tert-butylperoxy)cyclohexane in 80 g cumene at said temperature for 8 h to give 31.5 g 2,3-diphenyl-2,3-dimethylbutane vs. lower yields when using peroxides such as di-tert-butyl peroxide.

IT 5464-22-2P
(preparation of, by dehydrogenative dimerization)

RN 5464-22-2 HCAPLUS

CN 2,2,3,3-Butanetetracarboxylic acid, 1,2,3,4-tetramethyl ester (CA INDEX NAME)

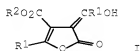


IT 5464-22-2P
(preparation of, by dehydrogenative dimerization)

L10 ANSWER 25 OF 56 HCAPLUS COPYRIGHT 2010 ACS on STN
 ACCESSION NUMBER: 1983:469193 HCAPLUS Full-text
 DOCUMENT NUMBER: 99:69193
 ORIGINAL REFERENCE NO.: 99:10741a,10744a
 TITLE: Flavoring compositions containing alkyl
 2,3-dihydro-3-(1'-hydroxyalkylidene)-2-oxo-5-alkyl
 furan-4-carboxylates
 PATENT ASSIGNEE(S): Fritzsche Dodge and Olcott, Inc., USA
 SOURCE: U.S., 5 pp. Cont.-in-part of U.S. Ser. No. 72,281,
 abandoned.
 CODEN: USXXAM
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 3
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4382972	A	19830510	US 1981-264806	19810518
US 4109662	A	19780829	US 1976-698742	19760622
PRIORITY APPLN. INFO.:			US 1975-601482	A2 19750804
			US 1976-698742	A3 19760622
			US 1978-908267	A2 19780527
			US 1979-72281	A2 19790904

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
 OTHER SOURCE(S): MARPAT 99:69193
 GI



AB Alkyl 2,3-dihydro-3-(1'-hydroxyalkylidene)-2-oxo-5-alkylfuran-4- carboxylate
 (I), where R1 and R2 are Me or Et and may be the same or different, at 0.01-

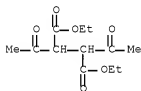
30% by weight is an enhancer for pineapple, butterscotch, banana, and strawberry flavoring materials for food, wine, tobacco, or carbonated beverages. Thus, a fruit flavored carbonated soft drink was produced by dissolving 1 oz by weight of a strawberry flavoring compns. containing 2.5% by weight ethyl 2,3-dihydro-3-(1'-hydroxyethylidene)-2-oxo-5-methylfuran-4-carboxylate [62409-40-9] in 1 gal of sugar syrup. One oz of the resulting mixture was added to 5 oz carbonated water to produce 6 oz of a carbonated beverage with enhanced flavor.

IT 2049-86-7P 55959-70-1P

(preparation of, in food flavor enhancer production)

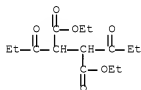
RN 2049-86-7 HCAPLUS

CN Butanedioic acid, 2,3-diacetyl-, 1,4-diethyl ester (CA INDEX NAME)



RN 55959-70-1 HCAPLUS

CN Butanedioic acid, 2,3-bis(1-oxopropyl)-, 1,4-diethyl ester (CA INDEX NAME)



IT 2049-86-7P 55959-70-1P

(preparation of, in food flavor enhancer production)

RETABLE

Referenced Author (RAU)	Year VOL PG	Referenced Work (RPY) (RVL) (RPG)	Referenced (RWK) File	
Anon			US 4109662 A	HCAPLUS
OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)				

L10 ANSWER 26 OF 56 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1982:455317 HCAPLUS Full-text

DOCUMENT NUMBER: 97:55317

ORIGINAL REFERENCE NO.: 97:9301a,9304a

TITLE: Ethane-1,1,2,2-tetracarboxylic acid tetraalkyl esters

INVENTOR(S): Rieck, Hans Peter

PATENT ASSIGNEE(S): Hoechst A.-G., Fed. Rep. Ger.

SOURCE: Ger. Offen., 12 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

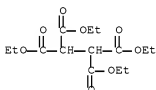
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3031325	A1	19820408	DE 1980-3031325	19800820
			<--	
PRIORITY APPLN. INFO.:			DE 1980-3031325	19800820
			<--	

AB The title esters were prepared by halogenative coupling of dialkyl malonates in the presence of aqueous alkali with the formation of a 2-phase system. Treating an emulsion of 25% NaOH and CH₂Cl₂ containing Bu₄N⁺Br⁻ with CH₂(CO₂Et)₂, then BrCCl₃ (1 mol/2 mol malonate) in CH₂Cl₂ gave 82.4% [(EtO₂C)₂CH]₂.

IT 632-56-4P 5464-22-2P
(preparation of)

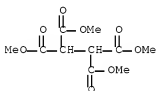
RN 632-56-4 HCAPLUS

CN 1,1,2,2-Ethanetetra-carboxylic acid, 1,1,2,2-tetraethyl ester (CA INDEX NAME)



RN 5464-22-2 HCAPLUS

CN 2,2,3,3-Butanetetra-carboxylic acid, 1,2,3,4-tetramethyl ester (CA INDEX NAME)



IT 632-56-4P 5464-22-2P
(preparation of)

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L10 ANSWER 27 OF 56 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1982:405812 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 97:5812

ORIGINAL REFERENCE NO.: 97:1127a,1130a

TITLE: Ethylenetetra-carboxylic acid tetraalkyl esters

INVENTOR(S): Rieck, Hans Peter

January 27, 2010

10/540,732

40

PATENT ASSIGNEE(S): Hoechst A.-G. , Fed. Rep. Ger.
SOURCE: Ger. Offen., 13 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

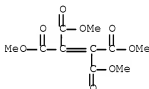
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
DE 3031348	A1	19820401	DE 1980-3031348	19800820
			<--	
PRIORITY APPLN. INFO.:			DE 1980-3031348	19800820
			<--	

AB The title esters were prepared from optionally halogenated dialkyl malonates or optionally monohalogenated tetraalkyl 1,1,2,2-ethanetetracarboxylates, bases, and optionally a halogenating agent in an amount necessary for forming the tetraalkylethenetetracarboxylate. Treating an emulsion of 25% NaOH and CH₂Cl₂ containing Bu₄N⁺ Br⁻ with CH₂(CO₂Et)₂ and then with BrCCl₃ in CH₂Cl₂ in 2 charges gave 67% (EtO₂C)C=C(CO₂Et)₂.

IT 1733-15-9P 6174-95-4P
(preparation of)

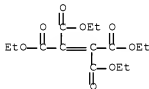
RN 1733-15-9 HCAPLUS

CN 1,1,2,2-Ethenetetracarboxylic acid, 1,1,2,2-tetramethyl ester (CA INDEX NAME)



RN 6174-95-4 HCAPLUS

CN 1,1,2,2-Ethenetetracarboxylic acid, 1,1,2,2-tetraethyl ester (CA INDEX NAME)



IT 1733-15-9P 6174-95-4P
(preparation of)

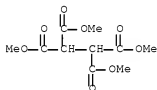
L10 ANSWER 28 OF 56 HCAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 1982:13111 HCAPLUS Full-text
DOCUMENT NUMBER: 96:13111
ORIGINAL REFERENCE NO.: 96:2189a,2192a

TITLE: Titanium nitride electrode for electrolytic reduction of organic compounds
 PATENT ASSIGNEE(S): Ube Industries, Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 56136988	A	19811026	JP 1980-40314	19800331
			<--	
JP 58012352	B	19830308		
PRIORITY APPLN. INFO.:			JP 1980-40314	A 19800331
			<--	

AB An electrode was coated with TiN. It had high overvoltage and corrosion resistance. Thus, a 0.2 + 2 + 4 cm Ti plate was heated in N at 1200° for 5 h to be coated with 200-μm thick TiN. Et4N p-toluenesulfonate (I) 15% in MeCN 100 mL in a cathode chamber and I 15% and Et4NI 5% in MeCN 100 mL in an anode chamber of a cell with a porous glass plate, a 4 mm diameter + 0.2 mm thick Pt anode, and the catholyte was electrolyzed at 300 mA and 15 V with addition of 22.2% dimethyl maleate [624-48-6] in MeCN 4 mL/h and CO2 injection into the catholyte for 6 h, and the solns. were each mixed with 400 mmol MeI. The conversion was 46.5 %, yield of tetramethyl ethanetetra-carboxylate [5464-22-2] 33.2 %, and current efficiency 33.6%, compared to a conversion of 31.7 %, yield 23.1 %, and current efficiency 25.5 % with a Pb electrode.

IT 5464-22-2P
 (production of, in electrochem. reductive methoxycarbonylation of dimethylmaleate on titanium nitride-coated electrodes)
 RN 5464-22-2 HCAPLUS
 CN 2,2,3,3-Butanetetra-carboxylic acid, 1,2,3,4-tetramethyl ester (CA INDEX NAME)



IT 5464-22-2P
 (production of, in electrochem. reductive methoxycarbonylation of dimethylmaleate on titanium nitride-coated electrodes)

L10 ANSWER 29 OF 56 HCAPLUS COPYRIGHT 2010 ACS on STN
 ACCESSION NUMBER: 1982:13110 HCAPLUS Full-text
 DOCUMENT NUMBER: 96:13110
 ORIGINAL REFERENCE NO.: 96:2189a,2192a
 TITLE: Sintered titanium nitride electrode for electrolytic reduction of organic compounds
 PATENT ASSIGNEE(S): Ube Industries, Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.
 CODEN: JKXXAF

January 27, 2010

10/540,732

42

DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

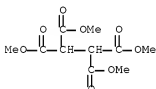
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 56136987	A	19811026	JP 1980-38992	19800328
			<--	
JP 58012351	B	19830308		
PRIORITY APPLN. INFO.:			JP 1980-38992	A 19800328
			<--	

AB TiN of average diameter 1 μ m and sp. surface area ≥ 1 m²/g is compacted and sintered. It has a high overvoltage and corrosion resistance. Thus, 8.41 g TiN or 0.13 μ m and 8.5 m²/g in a mold was hot-pressed at 200 kg/cm² and 1600° to a 0.2 + 2 + 4 cm plate of 96.8% theor. d. Et4N p-toluenesulfonate (I) 15 g in MeCN 100 mL in a cathodic chamber and I 15 g and Et4NI 5% in MeCN 100 mL in the anodic chamber of a cell with a porous glass plate, a 4 mm diameter + 0.2 cm thick Pt anode, and the cathode was electrolyzed at 300 mA and 15 V with addition of 22.2% methyl maleate [624-48-6] in MeCN 4 mL/h and CO₂ injection. The conversion was 52.1 %, yield of tetra-Me ethanetetra-carboxylate [5464-22-2] 36.0, and current efficiency 39.7%, compared to a conversion of 31.7 %, yield 23.1 %, and current efficiency 25.5% with a Pb electrode.

IT 5464-22-2P
(preparation of, by electrochem. reductive methoxycarbonylation of di-Me maleate in acetonitrile containing tetraethylammonium toluenesulfonate)

RN 5464-22-2 HCAPLUS

CN 2,2,3,3-Butanetetra-carboxylic acid, 1,2,3,4-tetramethyl ester (CA INDEX NAME)



IT 5464-22-2P
(preparation of, by electrochem. reductive methoxycarbonylation of di-Me maleate in acetonitrile containing tetraethylammonium toluenesulfonate)

L10 ANSWER 30 OF 56 HCAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 1981:469965 HCAPLUS [Full-text](#)
DOCUMENT NUMBER: 95:69965
ORIGINAL REFERENCE NO.: 95:11691a,11694a
TITLE: Electroreductive preparation of organic compounds
INVENTOR(S): Van Tilborg, Wilhelmus Joannes; Smit, Cornelis
Jacobus; Engels, Rainer
PATENT ASSIGNEE(S): Shell Internationale Research Maatschappij B. V.,
Neth.
SOURCE: Eur. Pat. Appl., 28 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 28430	A1	19810513	EP 1980-200992	19801020
EP 28430	B1	19840118	<--	
R: BE, CH, DE, FR, GB, IT, NL				
JP 56075584	A	19810622	JP 1980-151534	19801030
			<--	

PRIORITY APPLN. INFO.:	GB 1979-37859	A 19791101
	<--	

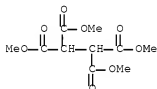
AB The title process is carried out in an undivided cell since the products obtained at the anode (CO₂ and N) do not interfere with the products obtained in the electroredn. A cylindrical glass cell was used in a CO₂ atmospheric to carry out the electrocarboxylation of dimethyl maleate (I) [624-48-6] in anhydrous Me₂CO using a Pb cathode and a Pt anode. The concentration of I 0.46 mol/L and the reaction was carried out at room temperature using 0.23 mol/L of bis(tetraethylammonium) oxalate as the CO₂ source and the conducting salt. A potential of -1.60 V vs. SCE and a c.d. of 100 mA/cm² were applied. From the mixture obtained, hexamethyl 1,1,2,3,4,4-butanehexacarboxylate [40853-30-3] was isolated at a 39% chemical yield and a 41% current yield.

IT 5464-22-2P

(synthesis of, by electrochem. carboxylation)

RN 5464-22-2 HCAPLUS

CN 2,2,3,3-Butanetetra-carboxylic acid, 1,2,3,4-tetramethyl ester (CA INDEX NAME)



IT 5464-22-2P

(synthesis of, by electrochem. carboxylation)

OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)

L10 ANSWER 31 OF 56 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1980:473028 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 93:73028

ORIGINAL REFERENCE NO.: 93:11887a,11890a

TITLE: Substituted malonic acid derivatives and their use as stabilizers

INVENTOR(S): Rasberger, Michael

PATENT ASSIGNEE(S): Ciba-Geigy Corp., USA

SOURCE: U.S., 19 pp. Cont.-in-part of U. S. Ser. No. 738,992, abandoned.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4198334	A	19800415	US 1977-861090	19771215
CH 597297	A5	19780331	CH 1975-14432	19751107
CH 597298	A5	19780331	CH 1975-14433	19751107
NL 7612248	A	19770510	NL 1976-12248	19761104
BE 848017	A1	19770505	BE 1976-172095	19761105
BR 7607420	A	19770920	BR 1976-7420	19761105
AT 346075	B	19781025	AT 1976-8243	19761105
CS 197282	B2	19800430	CS 1976-7171	19761105
SU 843763	A3	19810630	SU 1976-2418752	19761105
JP 61033168	A	19860217	JP 1984-167720	19840810
JP 02054830	B	19901122		
PRIORITY APPLN. INFO.:			CH 1975-14432	A 19751107
			CH 1975-14433	A 19751107
			CH 1976-4146	A 19760402
			CH 1976-4147	A 19760402
			CH 1976-11214	A 19760903
			US 1976-738992	A2 19761104
			CH 1976-12005	A 19760922

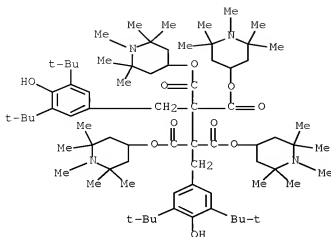
ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB Heat and light stabilizers for polyolefins comprise esters and amides prepared hydroxy- and 4-aminopolyalkylpiperidines and hydroxybenzylmalonic acids substd. by alkyl, esteralkyl, or phosphonoalkyl groups. Thus, 23.3 g butylmalonic acid bis(1,2,2,6,6-pentamethyl-4-piperidinyl) ester [63843-88-9] and 13.2 g N-(3,5-di-tert-butyl-4-hydroxybenzyl)dimethylamine [88-27-7] were dissolved in 200 mL toluene. After addition of 0.25 g LiNH₂, the mixture was refluxed 4th to give butyl(3,5-di-tert-butyl-4-hydroxybenzyl)malonic acid bis(1,2,2,6,6-pentamethyl-4-piperidinyl) ester (I) [63843-89-0]. Polypropylene (II) [9003-07-0] (100 parts) containing 0.2 parts I survived 27 days at 149° before decomposition set in, whereas without I, II decomposed after 1 day.

IT 63844-06-4P
(stabilizers, manufacture of, for polyolefins)

RN 63844-06-4 HCAPLUS

CN 2,2,3,3-Butanetetracarboxylic acid, 1,4-bis[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-, tetrakis(1,2,2,6,6-pentamethyl-4-piperidinyl) ester (9CI) (CA INDEX NAME)



IT 63844-06-4P

(stabilizers, manufacture of, for polyolefins)

OS.CITING REF COUNT: 8 THERE ARE 8 CAPLUS RECORDS THAT CITE THIS RECORD (8 CITINGS)

L10 ANSWER 32 OF 56 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1979:112137 HCAPLUS Full-text

DOCUMENT NUMBER: 90:112137

ORIGINAL REFERENCE NO.: 90:17589a,17592a

TITLE: Addition of organic electrophiles to carbon acids via catalysis by electrogenerated bases

INVENTOR(S): Baizer, Manuel M.; Goodin, Richard D.; Hallcher, Richard C.

PATENT ASSIGNEE(S): Monsanto Co., USA

SOURCE: U.S., 13 pp.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

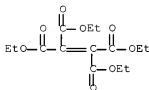
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4132611	A	19790102	US 1977-794775	19770509
			<--	
PRIORITY APPLN. INFO.:			US 1977-794775	19770509
			<--	

AB A method is given for the addition of organic electrophiles to C acids to produce C acid-organic electrophile addition product. A 3-compartment cell is used with separation of the anode and cathode compartments by a glass frit. Into the cathode compartment is placed a 0.1M solution of Bu₄NClO₄ in DMF, 9-phenylfluorene, and CCl₄ while the anode and buffer compartments are charged with 0.1M Bu₄NClO₄. The catholyte was deoxygenated by a dry Ar stream and then continuously bubbled with CO₂. Electrolysis was at ambient temperature (without temperature control) at a cathode potential of -1.0 V and 100 mA until 3.06 faradays had passed. After addition of MeI, vacuum aspiration, ether extraction, and evaporation the products found by NMR and chromatog. were: 9-chloro-9-phenylfluorene, 9-hydroxy-9-phenylfluorene, the starting material, and miscellaneous unidentified materials in a percentage ratio of 75:6:17:2.

IT 6174-95-4P
 (preparation of)
 RN 6174-95-4 HCAPLUS
 CN 1,1,2,2-Ethenetetra-carboxylic acid, 1,1,2,2-tetraethyl ester (CA
 INDEX NAME)



IT 6174-95-4P
 (preparation of)
 OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS
 RECORD (2 CITINGS)

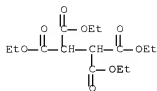
L10 ANSWER 33 OF 56 HCAPLUS COPYRIGHT 2010 ACS on STN
 ACCESSION NUMBER: 1978:160738 HCAPLUS Full-text
 DOCUMENT NUMBER: 88:160738
 ORIGINAL REFERENCE NO.: 88:25249a,25252a
 TITLE: Electrolytic preparation of
 ethane-1,1,2,2-tetracarboxylate esters and related
 cyclic tetracarboxylate esters
 INVENTOR(S): White, Donald A.
 PATENT ASSIGNEE(S): Monsanto Co., USA
 SOURCE: U.S., 9 pp.
 CODEN: USXXAM
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4076601	A	19780228	US 1976-744006	19761122
			<--	
PRIORITY APPLN. INFO.:			US 1976-744006	19761122
			<--	

AB The title preparation is carried out by dehydromer coupling of malonate esters at elevated temps. Thus, using a round-bottom flask equipped with a magnetic stirrer and 2 graphite rod electrodes, tetramethyl ethane-1,1,2,2-tetracarboxylate [5464-22-2], tetramethyl ethenetetracarboxylate [1733-15-9], and hexamethyl propane-1,1,2,2,3,3-hexacarboxylate [28781-91-1] were prepared at 77.0, 4.7, and 6.6% current efficiencies, resp., by the electrolysis of dimethyl malonate [108-59-8] in absolute MeOH containing NaI. The electrolysis was for 19 h using a constant current of 3.0 A which is 57 A-h or 2.13 Faradays which is equivalent to 1.06 Faradays/mol of dimethyl malonate.

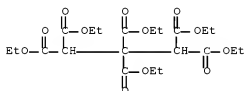
IT 632-56-4P 5435-96-1P 6174-95-4P
 (synthesis of, by electrochem. dehydromer coupling of malonate ester)
 RN 632-56-4 HCAPLUS
 CN 1,1,2,2-Ethanetetra-carboxylic acid, 1,1,2,2-tetraethyl ester (CA

INDEX NAME)



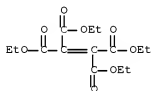
RN 5435-96-1 HCAPLUS

CN Pentanehexacarboxylic acid, 2,2,3,3,4,4-hexaethyl ester (CA INDEX NAME)



RN 6174-95-4 HCAPLUS

CN 1,1,2,2-Ethenetetraethoxybutane-1,1,2,2-tetracarboxylic acid, 1,1,2,2-tetraethyl ester (CA INDEX NAME)

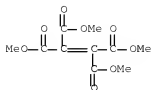


IT 1733-15-9P 5464-22-2P 28781-91-1P

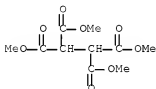
(synthesis of, by electrochem. dehydrodimeric coupling of malonate esters)

RN 1733-15-9 HCAPLUS

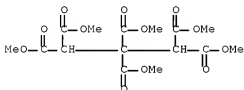
CN 1,1,2,2-Ethenetetraethoxybutane-1,1,2,2-tetracarboxylic acid, 1,1,2,2-tetraethyl ester (CA INDEX NAME)



RN 5464-22-2 HCAPLUS
 CN 2,2,3,3-Butanetetracarboxylic acid, 1,2,3,4-tetramethyl ester (CA INDEX NAME)



RN 28781-91-1 HCAPLUS
 CN Pentanehexacarboxylic acid, 2,2,3,3,4,4-hexamethyl ester (CA INDEX NAME)



IT 632-56-4P 5435-96-1P 6174-95-4P
 (synthesis of, by electrochem. dehydromer coupling of malonate ester)
 IT 1733-15-9P 5464-22-2P 28781-91-1P
 (synthesis of, by electrochem. dehydromer coupling of malonate esters)

L10 ANSWER 34 OF 56 HCAPLUS COPYRIGHT 2010 ACS on STN
 ACCESSION NUMBER: 1977:557007 HCAPLUS [Full-text](#)
 DOCUMENT NUMBER: 87:157007
 ORIGINAL REFERENCE NO.: 87:24765a,24768a
 TITLE: Use of amides of multibasic aliphatic carboxylic acids as skin moisturizers
 INVENTOR(S): Moeller, Hinrich; Osberghaus, Rainer
 PATENT ASSIGNEE(S): Henkel und Cie. G.m.b.H., Fed. Rep. Ger.
 SOURCE: Ger. Offen., 24 pp.
 CODEN: GWXXBX
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2604554	A1	19770811	DE 1976-2604554	19760206

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PRIORITY APPLN. INFO.:

DE 1976-2604554

19760206

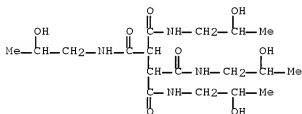
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AB Polybasic aliphatic carboxylic acid amides [R(CONR1R2)n: R = C1-8 aliphatic hydrocarbon groups; R2 and R1 = H, C1-4 alkyl or C2-6 hydroxy-, dihydroxy- or trihydroxyalkyl; n = 2-6; when n = 2 R is lacking and there is a direct bond between the amide groups] are prepared and used in 1-20% concns. as skin moisturizers for skin care cosmetics. For example, diethyl oxalate [95-92-1] was treated with diisopropanolamine [110-97-4] to give oxalic acid bis(diisopropanolamide) (I) [64165-37-3]. I contained 83% rel humidity and lost only 12% of the moisture after heating at 50°, and increased the moisture content and elasticity of swine epidermis soaked in a solution of I. A daytime cream was prepared from cutina MD 6.0, stearic acid 8.0, Eumulgin C 700 3.0, 2-octyldodecanol 4.0, vegetable oil 3.0, paraffin oil 5.0, triethanolamine 0.4, 1,2-propylene glycol 3.0, Nipagin M 0.2, perfume 1.0, H2O 63.4 and malonic acid diamide [108-13-4] 3.0 parts.

IT 64165-47-5P

(preparation of, as skin moisturizer for cosmetics)

RN 64165-47-5 HCAPLUS

CN 2,2,3,3-Butanetetra-carboxamide,
N,N',N'',N'''-tetrakis(2-hydroxypropyl)- (CA INDEX NAME)

IT 64165-47-5P

(preparation of, as skin moisturizer for cosmetics)

OS.CITING REF COUNT: 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS
RECORD (4 CITINGS)

L10 ANSWER 35 OF 56 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1977:467905 HCAPLUS Full-text

DOCUMENT NUMBER: 87:67905

ORIGINAL REFERENCE NO.: 87:10792h,10793a

TITLE: Substituted trimethylene cyclopropanes, salts, and intermediates

INVENTOR(S): Fukunaga, Tadamichi

PATENT ASSIGNEE(S): du Pont de Nemours, E. I., and Co., USA

SOURCE: U.S., 15 pp. Division of U.S. 3,963,769.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4005091	A	19770125	US 1976-663101	19760302
			<--	
US 3963769	A	19760615	US 1974-535138	19741220

PRIORITY APPLN. INFO.:

US 1974-535138

A3 19741220

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GI For diagram(s), see printed CA Issue.

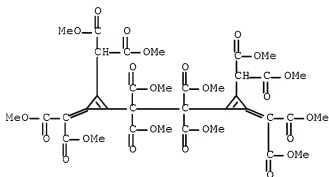
AB The reaction of tetrachlorocyclopropene with active methylene compds. gave cyclopropanediide salts I (M = NBu₄, NEt₄, NMe₄, Na, H; R = CN, CO₂Me, COMe; R₁ = CN, CO₂Me, COMe; R and R₁ are the same or different), which are useful as semiconductors (no data). I (M = NBu₄, R = R₁ = CN) showed its usefulness in color photography.

IT 61605-30-9P

(preparation of)

RN 61605-30-9 HCAPLUS

CN 1,1,2,2-Ethanetetracarboxylic acid,
1,2-bis[2-[2-methoxy-1-(methoxycarbonyl)-2-oxoethyl]-3-[2-methoxy-1-(methoxycarbonyl)-2-oxoethylidene]-1-cyclopropen-1-yl]-, tetramethyl ester (9CI) (CA INDEX NAME)



IT 61605-30-9P

(preparation of)

L10 ANSWER 36 OF 56 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1977:439256 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 87:39256

ORIGINAL REFERENCE NO.: 87:6187a,6190a

TITLE: 2,5-Di(lower-alkyl)3,4-di(2-hydroxy-2-propyl)furan compounds

INVENTOR(S): Bell, Malcolm R.; Oesterlin, Rudolf

PATENT ASSIGNEE(S): Sterling Drug Inc., USA

SOURCE: U.S., 3 pp.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

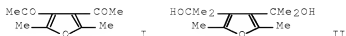
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4000165	A	19761228	US 1975-614478	19750918
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PRIORITY APPLN. INFO.:			US 1975-614478	19750918
<--				

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

GI



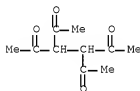
AB 2,4-Pentanedione treated with NaH, then iodine, gave (MeCO)₂CHCH(COMe)₂ which with concentrated HCl gave I. Grignard reaction of I with MeBr gave II, useful for inhibition of gastric juice secretion.

IT 5027-32-7P

(preparation and cyclocondensation reaction of)

RN 5027-32-7 HCAPLUS

CN 2,5-Hexanedione, 3,4-diacetyl- (CA INDEX NAME)



IT 5027-32-7P

(preparation and cyclocondensation reaction of)

L10 ANSWER 37 OF 56 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1977:438993 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 87:38993

ORIGINAL REFERENCE NO.: 87:6143a,6146a

TITLE: Substituted trimethylene cyclopropanes, salts, and intermediates

INVENTOR(S): Fukunaga, Tadamichi

PATENT ASSIGNEE(S): du Pont de Nemours, E. I., and Co., USA

SOURCE: U.S., 12 pp. Division of U.S. 3,963,769.

CODEN: USXXAM

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4003943	A	19770118	US 1976-663102	19760302
			<--	
US 3963769	A	19760615	US 1974-535138	19741220
			<--	
			US 1974-535138	A3 19741220
			<--	

GI For diagram(s), see printed CA Issue.

AB The reaction of tetrachlorocyclopropene with active methylene compds. yielded eleven salts I (R = R₁ = CN, CO₂Me, COMe; M = NBu₄, Na, H, NMe₄, NEt₄), which

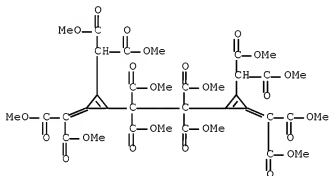
are useful as organic conductors and dyes (no data). I (R = R1 = CN, M = NBu4) showed its usefulness as a photoimage former.

IT 61605-30-9P

(preparation of)

RN 61605-30-9 HCAPLUS

CN 1,1,2,2-Ethanetetra-carboxylic acid,
1,2-bis[2-[2-methoxy-1-(methoxycarbonyl)-2-oxoethyl]-3-[2-methoxy-1-(methoxycarbonyl)-2-oxoethylidene]-1-cyclopropen-1-yl]-, tetramethyl ester (9CI) (CA INDEX NAME)



IT 61605-30-9P

(preparation of)

L10 ANSWER 38 OF 56 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1977:162812 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 86:162812

ORIGINAL REFERENCE NO.: 86:25493a,25496a

TITLE: Electrolytic carboxylation and dimerization of olefins

INVENTOR(S): Tyssee, Donald Armon

PATENT ASSIGNEE(S): Monsanto Co., USA

SOURCE: U.S., 7 pp.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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US 4013524	A	19770322	US 1972-317345	19721221
			<--	
PRIORITY APPLN. INFO.:			US 1972-317345	19721221
			<--	

AB The title processes were applied to α,β -olefinic nitriles, esters, and amides. Electrochem., reduction of these compds. in presence of CO2 accomplishes the 2 processes and the dimerized carboxyl derivs., are recovered. In a typical H-cell containing a glass frit of medium porosity, a 150 mL charge consisted of 0.1-0.2M tetraethylammonium p-toluenesulfonate in MeCN and specified amts. of the olefinic reactant such as dimethyl maleate [624-48-6]. A continuous stream of CO2 was bubbled through the cell at 1 atm pressure and application

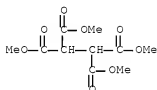
of -1.59 to -1.68 V at 0.03-0.8 A gave hexamethyl 1,1,2,3,4,4-butanhexacarboxylate [40853-30-3] at a current efficiency of 46%.

IT 5464-22-2P

(electrochem. synthesis of, by carboxylation and dimerization)

RN 5464-22-2 HCAPLUS

CN 2,2,3,3-Butanetetra-carboxylic acid, 1,2,3,4-tetramethyl ester (CA INDEX NAME)



IT 5464-22-2P

(electrochem. synthesis of, by carboxylation and dimerization)

OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)

L10 ANSWER 39 OF 56 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1977:55052 HCAPLUS Full-text

DOCUMENT NUMBER: 86:55052

ORIGINAL REFERENCE NO.: 86:8768h,8769a

TITLE: Substituted trimethylene cyclopropanes, salts and intermediates

INVENTOR(S): Fukunaga, Tadamichi

PATENT ASSIGNEE(S): du Pont de Nemours, E. I., and Co., USA

SOURCE: U.S., 15 pp.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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US 3963769	A	19760615	US 1974-535138	19741220
			<--	
US 4003943	A	19770118	US 1976-663102	19760302
			<--	
US 4005091	A	19770125	US 1976-663101	19760302
			<--	
PRIORITY APPLN. INFO.:			US 1974-535138	A3 19741220
			<--	

GI For diagram(s), see printed CA Issue.

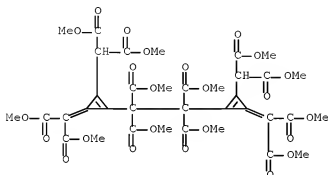
AB Tetrachlorocyclopropene (I) was treated with CH₂(CN)₂ and Bu₄N⁺ Br⁻ to yield a cyclopropanediide salt II which showed photoimaging properties. The reaction of I with active methylene compds. and Et₃N gave ammoniocyclopropanide inner salts III (R, R₁ = CN, CO₂Me). III were treated with R₂R₃CH₂ (R₂ = CN, CO₂Me, H, Ph, PhCO, PhSO₂; R₃ = CO₂Me, CN, NO₂) to give the resp. cyclopropanediide salts IV.

IT 61605-30-9P

(preparation of)

RN 61605-30-9 HCAPLUS

CN 1,1,2,2-Ethanetetracarboxylic acid,
1,2-bis[2-[2-methoxy-1-(methoxycarbonyl)-2-oxoethyl]-3-[2-methoxy-1-(methoxycarbonyl)-2-oxoethylidene]-1-cyclopropen-1-yl]-, tetramethyl
ester (9CI) (CA INDEX NAME)



IT 61605-30-9P
(preparation of)

L10 ANSWER 40 OF 56 HCAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 1976:121167 HCAPLUS Full-text
DOCUMENT NUMBER: 84:121167
ORIGINAL REFERENCE NO.: 84:19665a, 19668a
TITLE: Ethanetetracarboxylate perhydrates
INVENTOR(S): Rapko, John N.; Crutchfield, Marvin M.
PATENT ASSIGNEE(S): Monsanto Co., USA
SOURCE: U.S., 4 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3929875	A	19751230	US 1974-488382	19740715
NL 7508303	A	19760119	<--	19750711
FR 2278682	A1	19760213	FR 1975-21987	19750711
BE 831325	A1	19760114	BE 1975-158260	19750714
DE 2531444	A1	19760129	DE 1975-2531444	19750714
JP 51033106	A	19760322	JP 1975-85426	19750714
CA 1045153	A1	19781226	CA 1975-231442	19750714
PRIORITY APPLN. INFO.:			US 1974-488382	A 19740715

AB (NaO2C)2CHCH(CO2Na)2H2O2 (I) was prepared from its components and its X-ray diffraction pattern determined A detergent formulation containing I was prepared

IT 58829-83-7P
(preparation, crystallog. of, and use in detergents)

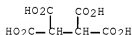
RN 58829-83-7 HCAPLUS

CN 1,1,2,2-Ethanetetra-carboxylic acid, compd. with peroxide, sodium salt (1:1:4) (CA INDEX NAME)

CM 1

CRN 36499-56-6

CMF C6 H6 O8 . 4 Na



● 4 Na

CM 2

CRN 7722-84-1

CMF H2 O2

HO—OH

IT 58829-83-7P
(preparation, crystallog. of, and use in detergents)

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L10 ANSWER 41 OF 56 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1976:60193 HCAPLUS Full-text

DOCUMENT NUMBER: 84:60193

ORIGINAL REFERENCE NO.: 84:9925a,9928a

TITLE: High temperature polyimides from 2,3-diacylsuccinic acid diester with diamines

INVENTOR(S): Stackman, Robert W.; Sargent, Donald W.

PATENT ASSIGNEE(S): Celanese Corp., USA

SOURCE: U.S., 13 pp.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3897402	A	19750729	US 1973-391396	19730824

PRIORITY APPLN. INFO.:

US 1971-143674

A2 19710512

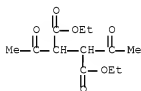
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AB Polyimides which were heat stable to 450-500° were prepared by reacting di-Et 2,3-diacetylsuccinate (I) [2049-86-7] or its derivs. with diamines. Thus, p,p'-bis(3,4-dicarboxy-2,5-dimethylpyrryl)biphenyl dianhydride [56891-33-9], prepared by treating I with benzidine (II) [92-87-5] with subsequent hydrolysis and dehydration, was heated with II at 40-75° for 5 hr to give a poly(amide acid) (III) [56909-35-4] having thermal stability to 460°. Refluxing III for 5 hr at 160° in MeCONMe2 gave the polyimide [56909-34-3], which showed small weight losses at ≤470°.

IT 2049-86-7P
(preparation and reactions of, with diamines)

RN 2049-86-7 HCAPLUS

CN Butanedioic acid, 2,3-diacetyl-, 1,4-diethyl ester (CA INDEX NAME)



IT 2049-86-7P
(preparation and reactions of, with diamines)

L10 ANSWER 42 OF 56 HCAPLUS COPYRIGHT 2010 ACS on STN
 ACCESSION NUMBER: 1975:599499 HCAPLUS Full-text
 DOCUMENT NUMBER: 83:199499
 ORIGINAL REFERENCE NO.: 83:31329a,31332a
 TITLE: Electrolytic reduction
 INVENTOR(S): Negishi, Naoki; Osa, Reiko
 PATENT ASSIGNEE(S): Research Foundation for Development of Industries
 SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 49124011	A	19741127	JP 1973-35103	19730329

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PRIORITY APPLN. INFO.:

JP 1973-35103

A 19730329

AB The electrolysis of H2C(CO2R)2 (I), AcCH2CO2R (II), or AcCH2C(OMe)2 (III) in MeCN by using Ag, Cu, Au, Pd, Rh, Pb, or Sn cathodes gave the corresponding dimers. Non-aqueous solvents such as DMF, MeCONMe2, pyridine, MeOCH2CH2OMe, THF, Me2CO, propylene carbonate, PhCN, EtCN, PrCN, or iso-PrCN were used. Thus, 1 M I (R = Et) in 50 ml pyridine was electrolyzed in the presence of 0.1 M Et4NBr using Ag cathode and a Pt anode (1.4V vs. SCE) for 4 hrs (total 0.042 F) to give (EtO2C)2CHCH(CO2Et)2, with 72% current efficiency. When the H-type cell was separated by a cation exchange membrane into 2 parts in which the cathode part contained 0.3 M LiBr, 0.3 M I (R = Et), and 1 M BuBr in 25 ml

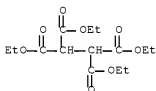
(MeOCH₂)₂ and the anode part contained 0.3 M LiBr in 25 ml (MeOCH₂)₂ and electrolysis was carried out using a Pt cathode and a Pt anode (-1.4 V vs. SCE) for 6 hrs (total 6.2 mF), di-Et butylmalonate was obtained with 51% current efficiency. Similar results were obtained in cases of II and III.

IT 632-56-4P

(formation of, by electrochem. alkylation in coupling)

RN 632-56-4 HCAPLUS

CN 1,1,2,2-Ethanetetracarboxylic acid, 1,1,2,2-tetraethyl ester (CA INDEX NAME)



IT 632-56-4P

(formation of, by electrochem. alkylation in coupling)

L10 ANSWER 43 OF 56 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1975:430333 HCAPLUS Full-text

DOCUMENT NUMBER: 83:30333

ORIGINAL REFERENCE NO.: 83:4855a, 4858a

TITLE: Hexane-1,2,3,4,5,6-hexacarboxylic acid salts as detergent additives

INVENTOR(S): Lorenz, Peter; Schmadel, Edmund; Conrad, Jens

PATENT ASSIGNEE(S): Henkel und Cie. G.m.b.H., Fed. Rep. Ger.

SOURCE: Ger. Offen., 42 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2342514	A1	19750313	DE 1973-2342514	19730823

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PRIORITY APPLN. INFO.: DE 1973-2342514 19730823

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AB Hexane-1,2,3,4,5,6-hexacarboxylic acid (I) [55525-26-3] and its hexa-Na salt (II) [55525-29-6] were prepared for use as detergent builders. Thus, 156 g ceric sulfate and 42.8 g tetra-Me propane-1,1,2,3-tetracarboxylate [55525-27-4] in water were heated at 50° for 4 days to prepare 20 g octa-Me hexane-1,2,3,3,4,4,5,6-octacarboxylate [55525-28-5] which (58 g) was heated with 35 g NaOH in butanolic solution for 3 days and treated with an acidic cation exchanger to prepare 32 g I. Thus, a detergent comprising dodecylbenzenesulfonate 20, II, perborate 30, and Na₂SO₄ 10% had cleaning power for cotton textiles similar to that of a detergent containing Na tripolyphosphate instead of the II.

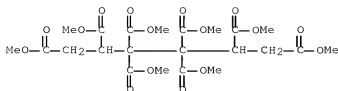
IT 55525-28-5P

(preparation and decarboxylation of)

RN 55525-28-5 HCAPLUS

CN 1,2,3,3,4,4,5,6-Hexanoctacarboxylic acid, 1,2,3,3,4,4,5,6-octamethyl

ester (CA INDEX NAME)



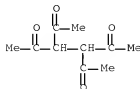
IT 55525-28-5P
(preparation and decarboxylation of)

L10 ANSWER 44 OF 56 HCAPLUS COPYRIGHT 2010 ACS on STN
 ACCESSION NUMBER: 1975:170063 HCAPLUS Full-text
 DOCUMENT NUMBER: 82:170063
 ORIGINAL REFERENCE NO.: 82:27157a,27160a
 TITLE: Tetraacetyethane
 INVENTOR(S): Goi, Mitsuhiro; Okamoto, Susumu
 PATENT ASSIGNEE(S): Nippon Synthetic Chemical Industry Co., Ltd.
 SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 49101321	A	19740925	JP 1973-15387	19730206
			<--	
PRIORITY APPLN. INFO.:			JP 1973-15387	A 19730206
			<--	

AB Ac2CHCHAc2 was prepared by reaction of Ac2CHX (X = halo) and alkali or alkaline earth metal salts of Ac2CH2 with a catalytic amount of iodine in THF or dioxane. Thus, 15% NaOMe in MeOH was added dropwise over 1 hr at 5-6° to Ac2CH2 and the MeOH removed. The residue was mixed with iodine and THF, treated over 2 hr at 20-30° with Ac2CHCl in THF, and stirred for 1 hr to give 70% Ac2CHCHAc2.

IT 5027-32-7P
(preparation of)
 RN 5027-32-7 HCAPLUS
 CN 2,5-Hexanedione, 3,4-diacetyl- (CA INDEX NAME)



IT 5027-32-7P

(preparation of)

L10 ANSWER 45 OF 56 HCAPLUS COPYRIGHT 2010 ACS on STN
 ACCESSION NUMBER: 1975:43169 HCAPLUS Full-text
 DOCUMENT NUMBER: 82:43169
 ORIGINAL REFERENCE NO.: 82:6869a,6872a
 TITLE: Carboxamide and thiocarboxamide
 PATENT ASSIGNEE(S): Sterling Drug Inc.
 SOURCE: Ger. Offen., 73 pp.
 CODEN: GWXXBX
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 4
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2415404	A1	19741010	DE 1974-2415404	19740329
			<--	
US 3928380	A	19751223	US 1973-346005	19730329
			<--	
US 4273713	A	19810616	US 1979-76125	19790917
			<--	
PRIORITY APPLN. INFO.:			US 1973-346005	A 19730329
			<--	
			US 1977-839328	A3 19771004
			<--	
			US 1978-928456	A3 19780727
			<--	

OTHER SOURCE(S): CASREACT 82:43169

GI For diagram(s), see printed CA Issue.

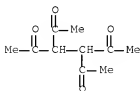
AB Fifty-eight carboxamides I (R = R1 = H; R3 = R4 = R5 = Me; R6 = Me, H, CHO; R7 = Me, H; R8 = e.g., H, alkyl, Ph, substituted phenyl, cycloalkyl, hydroxy- and aminoalkyl) and 2 I (R = R1 = Me, R = H, R1 = Me2NCH2CH2; R3 = R4 = R6 = R7 = Me, R8 = Ph), prepared in most cases by hydrolysis of II, are antisecretory and anti-ulcer agents. 2,5-Hexanedione reacted with R8NH2 in C6H6 to give III, which reacted with Me2CO and KCN in HOAc containing NH4OAc via a spiro intermediate IV to give II. II were also prepared from H2NCMe2CN and 2,5-hexanedione or III in HOAc-F3CCO2H. II (R8 = H) reacted with, e.g. Me2N(CH2)3Cl.HCl to give II [R8 = (CH2)3NMe2].

IT 5027-32-7P

(preparation and reactions of)

RN 5027-32-7 HCAPLUS

CN 2,5-Hexanedione, 3,4-diacetyl- (CA INDEX NAME)



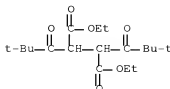
IT 5027-32-7P

(preparation and reactions of)

L10 ANSWER 46 OF 56 HCAPLUS COPYRIGHT 2010 ACS on STN
 ACCESSION NUMBER: 1970:3367 HCAPLUS Full-text
 DOCUMENT NUMBER: 72:3367
 ORIGINAL REFERENCE NO.: 72:610h,611a
 TITLE: Stable free radicals derived from pyrrole
 INVENTOR(S): Ramasseul, Rene; Rassat, Andre
 PATENT ASSIGNEE(S): Commissariat a l'Energie Atomique
 SOURCE: Ger. Offen., 11 pp.
 CODEN: GWXXBX
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 1917048	A	19691009	DE 1969-1917048	19690402
			<--	
DE 1917048	B2	19731206		
DE 1917048	C3	19740718		
FR 1579553	A	19690829	FR 1968-146947	19680404
			<--	
GB 1206377	A	19700923	GB 1969-1206377	19690320
			<--	
BE 730325	A	19690901	BE 1969-730325	19690324
			<--	
US 3642818	A	19720215	US 1969-810794	19690326
			<--	
NL 6905115	A	19691007	NL 1969-5115	19690402
			<--	
SE 363323	B	19740114	SE 1969-4844	19690403
			<--	
PRIORITY APPLN. INFO.:			FR 1968-146947	A 19680404
			<--	

GI For diagram(s), see printed CA Issue.
 AB Pyrrole-derived stable free radicals (I) where R1-R4 are C1-4 alkyl, either the same or different, are prepared Et pivaloylacetate (0.2 mole) (90% purity) is added dropwise to a suspension of 0.2 mole Na in 70 ml ether. After 3 hr stirring, a solution of 0.1575 mole iodine in 150 ml ether is added dropwise in 15 min to give 60% (tert-BuCO)2(CHCO2Et)2 (Ia) consisting of 95% α - and 5% β -isomer. Purified Ia (10.14 g) is dissolved in 100 ml HOAc and a solution of 3 g hydroxylamine-HCl and 6 g NaOAc in 42 ml H2O is added, and the reaction mixture is agitated 13 hr at 50 to 60° and then a suspension of 180 g NaHCO3 in 1 l. H2O is added to give 0.658 g di-Et 1-hydroxy-2,5-di-tertbutylpyrrole-3,4-dicarboxylate (II), m. 173°. II (0.510 g) is dissolved in 200 ml C6H6 and oxidized by addition of 3.38 g PbO2 15 min giving 66% I (R1 = R4 = tert-Bu, R2 = R3 = Et). Ia(1.21g), and 0.545 NH4OAc in 3.5 ml HOAc are refluxed to give 0.7 5 g di-Et 2,5-di-tert-butylpyrrole-3,4-dicarboxylate, m. 93°.
 IT 24835-44-7P
 (preparation of)
 RN 24835-44-7 HCAPLUS
 CN Butanedioic acid, 2,3-bis(2,2-dimethyl-1-oxopropyl)-, 1,4-diethyl ester (CA INDEX NAME)



IT 24835-44-7P

(preparation of)

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS
RECORD (1 CITINGS)

L10 ANSWER 47 OF 56 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1968:505924 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 69:105924

ORIGINAL REFERENCE NO.: 69:19811a,19814a

TITLE: Carbonylation of ethyl acetylenedicarboxylates

INVENTOR(S): Tsuji, Jiro; Nogi, Tatsuo

PATENT ASSIGNEE(S): Toyo Rayon Co., Ltd.

SOURCE: Jpn. Tokkyo Koho, 3 pp.

CODEN: JAXXAD

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 43009044	B4	19680412	JP	19641001

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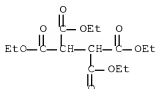
AB The title reaction is effected with a Pd, Rh, or Re catalyst in EtOH. Thus, a mixture of 5 g. EtO₂CC.tplbond.CCO₂Et, 0.5 g. PdCl₂, and 40 ml. EtOH was kept with 100 kg./cm². CO 10 hrs. at 25° in a 300-ml. autoclave, poured into H₂O, and extracted with Et₂O to give 4 g. (EtO₂C)2CHCH(CO₂Et)₂, b₅ 110°, m. 75°, together with 3.2 g. .apprx.1:1 mixture (b₂ 90-103°) of EtO₂CCH:C(CO₂Et)₂ and EtO₂CCH₂CH(CO₂Et)₂. Pd/C in 5% HCl-EtOH was also effective. Other catalysts gave lower yields.

IT 632-56-4P

(preparation of)

RN 632-56-4 HCAPLUS

CN 1,1,2,2-Ethanetetraethyloxylic acid, 1,1,2,2-tetraethyl ester (CA
INDEX NAME)



IT 632-56-4P

(preparation of)

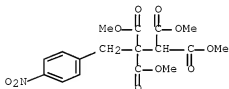
L10 ANSWER 48 OF 56 HCAPLUS COPYRIGHT 2010 ACS on STN
 ACCESSION NUMBER: 1967:75816 HCAPLUS Full-text
 DOCUMENT NUMBER: 66:75816
 ORIGINAL REFERENCE NO.: 66:14199a,14202a
 TITLE: Esters of ethane- and propanetetra-carboxylic acids
 as ultraviolet absorbers
 INVENTOR(S): Hayer, Dieter; Groezinger, Lore
 PATENT ASSIGNEE(S): Siegle, G., und Co. G.m.b.H.
 SOURCE: Ger., 6 pp.
 CODEN: GWXXAW
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 1232963		19670126	DE 1964-S89894	19640307
US 3522207		19700728	US	19670616

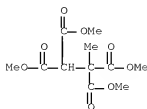
AB The title compds. R2C(CO2R)2CH(CO2R1)2 (I) and R1CH[CH(CO2R)2]2 (II) stabilize organic materials against the effect of uv radiation. Thus, suitable compds. are: (a) I, (R = R1 = Me, R2 and m.p. given): PhCH2, m. 98-100°; 4-O2NC6H4CH2, m. 119-20°; Me, - (b0.5 142-5°); Et, 54-6°; Bu, 67-70°; and allyl, - (b0.3 151°); (b) I (R = R1 = Et, R2 = PhCH2) oil; (c) I (R = Me, R1 = R2 = PhCH2) oil; (d) II (R = Me, R1 and m.p. given): Ph, 64-5°; 4-MeOC6H4, 72°; 2-O2NC6H4, 94-5°; iso-Pr, 68°; 3,4-(MeO)2C6H3, 83°; Me2CC1CH2, 63-3.5°; 2-furyl, 69°; (e) II (R = Et, R1 and m.p. given): 3-NO2C6H4, - (oil); 4-O2NC6H4, -; Ph, 55-60°; (f) II (R1 = Ph, R and m.p. given): isooctyl, (oil); - PhCH2, - (oil).

IT 5659-90-5P 103855-30-7P 1081848-40-9P
 (Esters of ethane- and propanetetra-carboxylic acids as ultraviolet absorbers)

RN 5659-90-5 HCAPLUS
 CN 2,2,3,3-Butanetetra-carboxylic acid, 2-[(4-nitrophenyl)methyl]-, 1,2,3,4-tetramethyl ester (CA INDEX NAME)

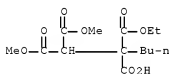


RN 103855-30-7 HCAPLUS
 CN Butanetetra-carboxylic acid, 2-methyl-, 1,2,3,3-tetramethyl ester (CA INDEX NAME)



RN 1081848-40-9 HCAPLUS

CN Butanetetra-carboxylic acid, 2-butyl-, 1-ethyl 3,3-dimethyl ester (CA INDEX NAME)



IT 5659-90-5P 103855-30-7P 1081848-40-9P

(Esters of ethane- and propanetetra-carboxylic acids as ultraviolet absorbers)

L10 ANSWER 49 OF 56 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1966:429707 HCAPLUS Full-text

DOCUMENT NUMBER: 65:29707

ORIGINAL REFERENCE NO.: 65:5519g,5520a-c

TITLE: New therapeutic agents derived from streptomycin

INVENTOR(S): Vanderhaeghe, Mrs Hubert; Claes, Paul

PATENT ASSIGNEE(S): Recherche et. Industrie Therapeutiques (R.I.T.) S.A.

SOURCE: 17 pp.

DOCUMENT TYPE: Patent

LANGUAGE: Unavailable

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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BE 666228		19651103	BE	19650701

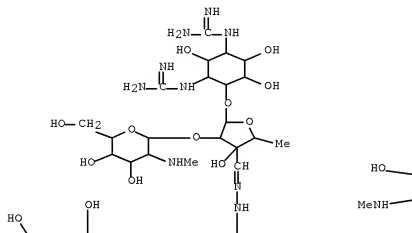
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PRIORITY APPLN. INFO.:	GB	19640702
	<--	

AB New derivs. of polystreptomycylidenes were obtained by the condensation of streptomycin 3HCl (I) with compds. having at least 2 amine groups capable of reacting with the aldehyde group of I. E.g., 8.10 g. I and 0.740 g. H₂NNHC(:NH)NHNH₂.HCl (II) were dissolved in 200 ml. H₂O and the solution allowed to stand overnight at room temperature and concentrated, and the sirup taken up in absolute EtOH. On trituration, a powder was obtained, 9 g. of which was purified by dissolving in 250 ml. MeOH and subsequently adding ether. The resulting distreptomycylidene diaminoguanidine-7HCl (III) was practically devoid of the antibiotic activity of I with respect to *Escherichia coli* and *Micrococcus pyogenes aureus* (ATCC 6538 P). When III was examined by

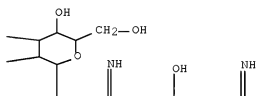
ascending paper chromatography (PrOH-AcOH-C5H5N-H2O, 10:1:1:9), following detection by Sakaguchi's reagent, a single spot, $R_f = 0.34 (\pm 0.03)$, was obtained, the maltol test being neg. Chromatographing I under the same conditions gave a spot, $R_f = 0.52 (\pm 0.03)$, with a pos. response to the Sakaguchi and maltol reactions. In other examples, II was replaced with the HCl salts of $H_2NNHC(:NNH_2)NNH_2$, $H_2NNH(CH_2)_nNNH_2$ ($n = 2, 4, 6$), m - and p - $C_6H_4(NNNH_2)_2$, $2, 2'$ - $C_5H_4C_6H_4(NNNH_2)_2$, $4, 4'$ - $C_6H_4CH_2C_6H_4(NNNH_2)_2$, $2, 3$ - $C_{10}H_6(NNNH_2)_2$, $2, 7$ - $C_{10}H_6(NNNH_2)_2$, $H_2NO(CH_2)_2ONH_2$, $H_2C(CONHNNH_2)_2$, $(H_2NNHOC)2CHCH$ ($CONHNNH_2$) $_2$. These derivs. of I lower the level of plasma cholesterol and also of plasma lipids. They are practically devoid of the antibiotic activity of I. They can be administered orally, the unit dose varying from 100 mg. to 1 g., and the daily dose from 500 mg. to 3 g.

- IT 18602-22-7R, 1,1,2,2-Ethanetetrahydroxydicarboxylic acid, tetrahydrazide, tetrahydrazone with streptomycin, dodecahydrochloride (preparation of)
- RN 18602-22-7 HCAPLUS
- CN 1,1,2,2-Ethanetetrahydroxydicarboxylic acid, tetrahydrazide, tetrahydrazone with streptomycin, dodecahydrochloride (7CI, 8CI) (CA INDEX NAME)

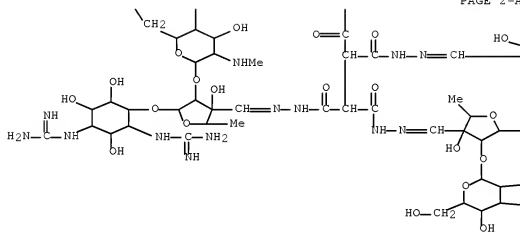
PAGE 1-A



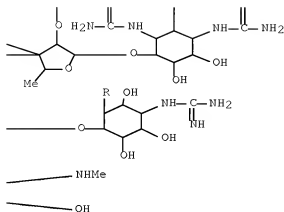
PAGE 1-B



PAGE 2-A



PAGE 2-B



PAGE 3-A



12 HCl

IT 18602-22-7P, 1,1,2,2-Ethanetetracarboxylic acid,
tetrahydrazide, tetrahydrazone with streptomycin, dodecahydrochloride
(preparation of)

L10 ANSWER 50 OF 56 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1966:103907 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 64:103907

ORIGINAL REFERENCE NO.: 64:19502g-h,19503a

TITLE: Basic α,α -diphenyl- α -(4-chlorobutoxy)acetates

INVENTOR(S): Klossa, Josef

SOURCE: 3 pp.

DOCUMENT TYPE: Patent

LANGUAGE: Unavailable

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

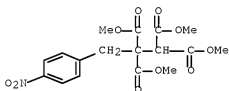
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 1213854	----	19660407	DE 1962-K47947	19621011

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AB Ph2C(CO2R)O(CH2)4Cl (I), where R is a (dialkylamino)alkyl group, are obtained by etherification of (dialkylamino)alkyl benzilates with 4-chlorobutanol, and by esterification of α,α -diphenyl- α -(4-chlorobutoxy)acetic acid, acid ester, or acid chloride with a (dialkylamino)alkyl halide or (dialkylamino)alkanol.

Thus, 18 g. β -(dimethylamino)ethyl α, α -diphenyl- α -chloroacetate hydrochloride and 25 ml. 4-chlorobutanol was heated to 80-100° under stirring and O bubbling through the mixture After 6-8 hrs., Et2O (5 times the volume) was added, the mixture cooled, and the precipitate recrystd. to give 12 g. β -(dimethylamino)ethyl, α, α -(diphenyl- α -(4-chlorobutoxy)acetate-HCl, m. 108-10° (iso-PrOH), L.D.50 220 mg./kg. by mice. Similarly prepared were the hydrochlorides of I (R and m.p. given): β -methyl- γ -(dimethylamino)propyl, 113-15°, yield 60%; β -(diethylamino)ethyl, 103-5°; α -methyl- β -dimethylaminoethyl, --; N-methyl-4-piperidyl, --. The compds. have analgesic and spasmolytic properties.

- IT 5659-90-5P, 1,1,2,2-Propanetetra-carboxylic acid,
3-(p-nitrophenyl)-, tetramethyl ester
(preparation of)
RN 5659-90-5 HCAPLUS
CN 2,2,3,3-Butanetetra-carboxylic acid, 2-[(4-nitrophenyl)methyl]-,
1,2,3,4-tetramethyl ester (CA INDEX NAME)



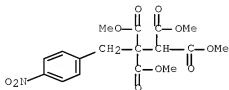
- IT 5659-90-5P, 1,1,2,2-Propanetetra-carboxylic acid,
3-(p-nitrophenyl)-, tetramethyl ester
(preparation of)

L10 ANSWER 51 OF 56 HCAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 1966:103906 HCAPLUS Full-text
Correction of: 1966:51615
DOCUMENT NUMBER: 64:103906
Correction of: 64:51615
ORIGINAL REFERENCE NO.: 64:19502f-g
TITLE: Ultraviolet light absorbing compounds
PATENT ASSIGNEE(S): G. Siegle & Co., G.m.b.H.
SOURCE: 5 pp.
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
NL 6501525	----	19650908	NL 1965-1525	19650208
GB 1030629			GB	
PRIORITY APPLN. INFO.:			DE	19640307

- AB (MeO2C)2CHCHRCH(CO2Me)2, where R = Ph (m. 64-5°), p-MeOC6H4 (m. 72°), or o-O2NC6H4 (m. 94-5°) and p-O2NC6H4CH2C(CO2Me)2CH(CO2Me)2 (m. 119-20°) absorb uv light with high intensity and good selectivity. Such compds. are colorless and do not discolor under the influence of light and are therefore useful in transparent products.

IT 5659-90-5P
 (Ultraviolet light absorbing compounds)
 RN 5659-90-5 HCAPLUS
 CN 2,2,3,3-Butanetetra-carboxylic acid, 2-[(4-nitrophenyl)methyl]-,
 1,2,3,4-tetramethyl ester (CA INDEX NAME)



IT 5659-90-5P
 (Ultraviolet light absorbing compounds)

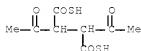
L10 ANSWER 52 OF 56 HCAPLUS COPYRIGHT 2010 ACS on STN
 ACCESSION NUMBER: 1963:468743 HCAPLUS [Full-text](#)
 DOCUMENT NUMBER: 59:68743
 ORIGINAL REFERENCE NO.: 59:12647c-d
 TITLE: Antimony(III) complex of dl-2,3-dimercaptosuccinic acid
 PATENT ASSIGNEE(S): F Hoffmann-La, Roche & Co., A.-G.
 SOURCE: 3 pp.
 DOCUMENT TYPE: Patent
 LANGUAGE: Unavailable
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 928624	----	19630612	GB 1961-26887	19610725
CH 397651			CH	
DE 1168423			DE	
FR 1343489			FR	
PRIORITY APPLN. INFO.:			CH	19610223

AB Racemic 2,3-dimercaptosuccinic acid is treated with Sb2O3 to give the title complex (I) which can be used in the treatment of exptl. schistosomiasis in mice. Thus, 500 ml. 5N HCl in EtOAc is cooled with ice, 380 g. KO2CC.tplbond. CCO2H is added in 30 min., the mixture is kept for 1 hr., 380 g. HSCH2CCO2H is added in 2.5-3 hrs. at <35°, and the mixture is stirred at room temperature for 15 hrs. to give 75 g. dl-2,3-diacetylthiosuccinic acid (I), m. 150-2° (EtOAc-petr. ether). A solution of 19 g. I in 190 ml. 3N NaOH is kept at room temperature for 2 min. and the solution is cooled to 0°, saturated with NaCl, and acidified to Congo red with HCl to give 10.5 g. dl-HO2CCH(SH)CH(SH)CO2H, m. 126-7°. A suspension of 182.2 g. dl-HO2CCH(SH)CH(SH)CO2H in 400 ml. H2O is treated with 416.6 ml. 4N NaOH with cooling, 97.1 g. pulverized Sb2O3 is added, and the mixture is stirred at room temperature for several hrs. to give a solution. The solution is adjusted to pH 5-6, the solution is evaporated in vacuo at a low temperature, and an aqueous solution of the residue is treated with dilute mineral acid to give I.

IT 1195521-86-8P
 (Antimony(III) complex of dl-2,3-dimercaptosuccinic acid)

RN 1195521-86-8 HCAPLUS
CN INDEX NAME NOT YET ASSIGNED



IT 1195521-86-8P
(Antimony(III) complex of di-2,3-dimercaptosuccinic acid)

L10 ANSWER 53 OF 56 HCAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 1958:56250 HCAPLUS
DOCUMENT NUMBER: 52:56250
ORIGINAL REFERENCE NO.: 52:10185f-i,10186a-b
TITLE: Hydroxyalkyl carboxylates
INVENTOR(S): Schmutzler, Alfred F.
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2821542		19580128	US 1953-335583	19530206

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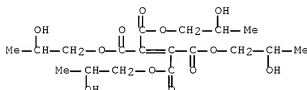
AB In the preparation of hydroxyalkyl carboxylates (I), useful as insect repellents, from glycols (II) and dibasic organic acids (III), polyester or resin formation can be greatly reduced if a moderate excess (25-300%) of II is treated with III in the presence of a large amount of an H₂O-immiscible inert solvent (40-80% of the charge) so that the liberated H₂O can be removed as soon as it is formed and does not retard the esterification. Thus, PrCH(OH)CH₂CH₂OH (IV) 450, o-C₆H₄(CO)₂O 148, toluene 600, and 98% H₂SO₄ 3 parts are stirred and boiled, so that the moderate rate of distillation of solvent removes liberated H₂O, which is removed in a separator from which the solvent returns to the reaction zone. After the removal of almost all the H₂O (24 hrs.), the charge is cooled to 60° or lower and mixed about 0.5 hr. with NaHCO₃ 40 in H₂O 1000 parts, NaHCO₃ added if the H₂O layer becomes neutral, the H₂O layer separated, the H₂O-insol. layer washed with H₂O to remove traces of alkali, and distilled below 90°/1 atmospheric-20 mm., and traces of remaining toluene removed by a stream of inert gas, e.g., CO₂ or N. The dry ester may be mixed with 0.5% filter-cel and filtered. I were also prepared from the following: IV, cis-3,6-endomethylenetetrahydrophthalic anhydride (V); HO(C₂H₄O)₃H, V; HO(C₂H₄O)₃C₂H₄OH (VI), V; IV, H₂C₂O₄ (VII); C₂H₄(OH)₂, VII; (HOCH₂CH₂)₂O, VII; IV, (:CHCO)₂O; IV, chloromaleic anhydride; IV, V; VI, V; MeCH(OH)CH₂OH, tetramethyl ethylenetetra-carboxylate; C₂H₄(OH)₂, hexa-Me mellitate aconitic acid, cyclohexylamine (VIII); tri-Me aconitate, HN(CH₂CH₂OH)₂; CH₂(OH)CH₂CHMeOH (IX), mellitic acid (X); IX, 1,2,3-butanetricarboxylic acid; IX, pyromellitic acid (XI); VIII, XI to give bis(3-hydroxybutyl) bis(N-cyclohexylcarbamyl)benzenedicarboxylate and 3-hydroxybutyl tris(N-cyclohexylcarbamyl)benzoate; VIII, X to give pentakis(3-hydroxybutyl) carbamylbenzenepentacarboxylate, tetrakis-(3-hydroxybutyl) bis (N-cyclohexylcarbamyl)benzenetetra-carboxylate, tris(3-hydroxybutyl) tris(N-cyclohexylcarbamyl)benzenetricarboxylate, and bis(3-hydroxybutyl) tetrakis(N-cyclohexylcarbamyl)phthalate; urea, p-C₆H₄(CO₂H)₂ (XII) to give 2-ethyl-3-

hydroxyhexyl 4-carbamylbenzoate; OC(NHPh)2, XII to give 2-ethyl-3-hydroxyhexyl-4-carbanilobenzoate; OC(NHMe)2, XII to give 2-ethyl-3-hydroxyhexyl 4-(N-methylcarbamyl)benzoate; OC(NMe2)2, XII to give 2-ethyl-3-hydroxyhexyl 4-(NN-dimethylcarbamyl)benzoate.

IT 108241-14-1P, Ethenetetracarboxylic acid, tetrakis(2-hydroxypropyl) ester (preparation of)

RN 108241-14-1 HCAPLUS

CN Ethenetetracarboxylic acid, tetrakis(2-hydroxypropyl) ester (6CI) (CA INDEX NAME)



IT 108241-14-1P, Ethenetetracarboxylic acid, tetrakis(2-hydroxypropyl) ester (preparation of)

L10 ANSWER 54 OF 56 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1957:1969 HCAPLUS

DOCUMENT NUMBER: 51:1969

ORIGINAL REFERENCE NO.: 51:466b-i

TITLE: Esters of phosphono derivatives of polyfunctional compounds

INVENTOR(S): Johnston, Franklin

PATENT ASSIGNEE(S): Union Carbide & Carbon Corp.

DOCUMENT TYPE: Patent

LANGUAGE: Unavailable

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2754319	----	19560710	US 1948-36418	19480701

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AB The patent covers the process of addition of (RO)2POH to the double bond of unsatd. polybasic acid derivs. such as esters, amides, or nitriles. The products are useful flame-resistant plasticizers for vinyl resins. To 194 g. (BuO)2POH and 5 g. NaNH2 was added 228 g. di-Bu maleate in 0.5 hr. at 50°; after 1.25 hrs. at 50° the mixture was neutralized with AcOH and distilled, yielding 85% BuO2CCH2CH(CO2Bu)P(O)(OBu)2 (I), b1.2 190°, nD20 1.4440, d20 1.0309. The same ester formed in low yield on heating (BuO)2POH with di-Bu maleate 137 hrs. at 100°. To (BuO)2PONa (from 15 lb. ester) was added 53 lb. (BuO)2POH and 113 lb. di-2-ethylhexyl maleate at 50-70° in 2 hrs.; after 15 min. at 80°, the mixture was neutralized with AcOH, diluted with Bu2O, and washed with H2O yielding 95.5% di-2-ethylhexyl 2-(dibutylphosphono)succinate, b0.3 185°, nD20 1.4512, d20 0.987. Similarly was prepared I, using (BuO)2ONa, (BuO)2OK, or (BuO)2OLi as catalysts. Reaction of di(phenoxyethyl) maleate with (BuO)2POH in C6H6 catalyzed by NaNH2 gave di(phenoxyethyl) 2-(dibutylphosphono)succinate, b0.3 210°, nD30 1.4989, d2030 1.2220. Similarly were prepared RO2CCH2CH(CO2R')P(OR')2(R and R' given): ClCH2CH2, Bu, b0.4 195°,

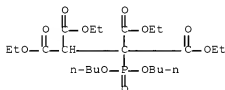
nd20 1.4718; tetrahydrofurfuryl, Bu, b0.5 185°, nd20 1.4682, d20 1.1338; allyl, Bu, b0.35 122°, nd20 1.4568, d20 1.0755; 2-ethylhexyl, cyclohexyl, b. 156°/1 μ, nd20 1.4708, d20 1.025; Bu, Ph, b. 149°/5 μ, nd20 1.5043, d20 1.135; b. 145°/10 μ, nd30 1.4827, d20 1.040; PhCH2, Bu, b. 156°/13 μ, nd30 1.5032, d20 1.122; Bu, 2-methylcyclohexylmethyl, b. 156°/6 μ, nd30 1.4692, d20 1.045; Et, Et, b2.5 155°, nd20 1.4398, d20 1.1332; Et, Bu, b1.7 172°, nd20.5 1.4412, d20 1.0698; Bu, allyl, b0.7 185°, nd20 1.4680, d20 1.0954; Bu, b0.2 168°, nd20 1.4707, d20 1.0745; cyclohexyl, Bu, b. 145°/10 μ, nd30 1.4665, d20 1.0724; Bu, tetrahydrofurfuryl, b. 156°/1 μ, nd20 1.4677, d20 1.1350; 2-ethylhexyl, Et, b. 156°/1 μ, nd20 1.4500, d20 1.0097; Bu, 2-ethylhexyl, b0.2 170°, nd20 1.4511, d20 0.9849; Bu, octyl, b0.6 195°, nd20 1.4498, d20 0.9812; 2-ethylhexyl, MeOCH2CH2, b. 156°/5 μ, nd20 1.4538, d20 1.0405; Bu, Et, b2.7 184-6°, nd30 1.4402, d20 1.068; MeOCH2CH2, Et, b2.2 200°, nd30 1.4456, d20 1.165; MeOCH2CH2, EtOCH2CH2, b. 145-56°/1 μ, nd30 1.4507, d20 1.159; Bu, EtOCH2CH2, b. 145°/1 μ, nd30 1.4451, d20 1.077; 2-methylcyclohexylmethyl, Bu, b. 156°/2 μ, nd30 1.4681, d20 1.046; MeCH(OMe)CH2CH2, Bu, b2 μ 156°, nd30 1.4462, d20 1.060; Bu, iso-Pr, b2.3 182°, nd30 1.4373, d20 1.0376; 2-methylcyclohexylmethyl, Bu, b2 μ 156°, nd30 1.4681, d20 1.046; Me2CHCH2CH2, Bu, b8 μ 145°, nd30 1.4437, d20 0.9637. Also prepared were (b.p., nd20, and d20 given): BuO2-CCH2CH(CO2Bu)CH2P(O)(OBu)2, b2.4 211°, 1.4465, 1.0267; (BuO)2P(O)C(CO2Et)2CH(CO2Et)2, b4 155°, 1.4480, 1.105; tri-Et dibutylphosphonotricarballylate (from tri-Et aconitate) b. 135°/1 μ, 1.4488, 1.0953; (MeOCH2CH2O)2P(O)CH(CO2CH2CH2OMe)CH2CO2CH2CH2OMe, b0.7 185°, 1.4550, 1.1990; (BuO)2P(O)CH(CONMe2)CH2CONMe2, b2.1 207°, nd30 1.4717, 1.079; (BuO)2P(O)CHPhCH(CO2Et)2, b. 149°/9 μ, nd30 1.4800, 1.0872; (BuO)2P(O)CHPhCH(CN)CO2Et, b0.05 149°, nd30 1.4870, 1.090; Et 2-cyano-3-(dibutylphosphono)hydrocinnamate, b. 169°, nd30 1.490, 1.084; (BuO)2P(O)CHPhCH(CN)CONH2, - (m. 105-6°), -, -; (BuO)2P(O)C(CN)(CO2Et)CH(CN)CO2Et; tri-Bu(dibutylphono)tricarballylate, b. 171°/1 μ, 1.4500, 1.0420; Me2NOCCH2CH(CONMe2)P(O)(OBu)2, b. 156°/4 μ, nd30 1.4662, 0.980.

IT 122764-37-8P, 1,1,2,2-Ethanetetracarboxylic acid, phosphono-, P,P-dibutyl tetra-Et ester

(preparation of)

RN 122764-37-8 HCAPLUS

CN Butanetetracarboxylic acid, 2-(dibutoxyphosphinyl)-, 1,2,3,3-tetraethyl ester (CA INDEX NAME)



IT 122764-37-8P, 1,1,2,2-Ethanetetracarboxylic acid, phosphono-, P,P-dibutyl tetra-Et ester (preparation of)

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L10 ANSWER 55 OF 56 HCAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 1954:56784 HCAPLUS

DOCUMENT NUMBER: 48:56784
 ORIGINAL REFERENCE NO.: 48:10054e-i,10055a-c
 TITLE: Diesters of phosphono derivatives of polyfunctional organic compounds
 INVENTOR(S): Johnston, Franklin
 PATENT ASSIGNEE(S): Union Carbide & Carbon Corp.
 DOCUMENT TYPE: Patent
 LANGUAGE: Unavailable
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

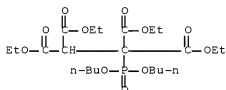
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 695782		19530819	GB 1949-14906	19490603

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AB The process of addition of (RO)2POH to unsatd. organic compds. having functional groups is covered. The reaction is carried out at 25-250° in the presence of basic catalysts such as alkali metals, their amides, or alkoxides (cf. preceding abstract). To 194 g. (BuO)2POH and 5 g. NaNH2 was added over 30 min. 228 g. di-Bu maleate below 50°; after 1.25 hrs. stirring the reaction was complete without further cooling, and neutralization with AcOH, filtration, and distillation gave 85% (BuO)2P(O)CH(CO2Bu)CH2CO2Bu, b1.2 190°, n20D 1.4440, d20 1.0309. The following % yields were obtained with the various other catalysts: Na 77.5, K 84.2, Li 50.5, NaH 76.3, Et2NH 68.7, ClOH/Na 65.6, MeONa 54.3, CaO 11.1, (iso-PrO)3Al 38.2, H2SO4 0%. Similarly were obtained the following esters (RO)2P(O)CH(CO2R')CH2CO2R' (R, R', b.p./mm., n20D, and d20 shown): Et, Et, 155°/2.5, 1.4398, 1.1332; Bu, Et, 172°/1.7, 1.4412, 1.0698; CH2:CHCH2, Bu 185°/0.7, 1.4680, 1.0954; Bu, CH2:CHCH2, 122°/0.35, 1.4568, 1.0755; MeOCH2CH2, MeOCH2CH2, 185°/0.7, 1.4550, 1.1990; Bu, ClCH2CH2, 195°/0.4, 1.4718, -, cyclohexyl, Bu, 168°/0.2, 1.4707, 1.0745; Bu, cyclohexyl, 145°/1 + 10-2, (n30D) 1.4665, 1.0724; tetrahydrofurfuryl, Bu, 156°/1 + 10-3, 1.4677, 1.1350; Bu, tetrahydrofurfuryl, 185°/0.5, 1.4682, 1.1338; Et, 2-ethylhexyl, 156°/1 + 10-3, 1.4500, 1.0097; 2-ethylhexyl, Bu 170°/0.2, 1.4511, 0.9849; C8H17, Bu, 195°/0.6, 1.4498, 0.9812; Bu, 2-ethylhexyl, 185°/0.3, 1.4512, 0.987; MeOCH2CH2, 2-ethylhexyl, 156°/5 + 10-3, 1.4538, 1.0405; Bu, PhOCH2CH2, 210°/0.3, (n30D) 1.4989, 1.2220; cyclohexyl, 2-ethylhexyl, 156°/1 + 10-3, 1.4708, 1.025; Bu, PhCH2, 156°/13 + 10-3, (nD at 30° from this point) 1.5032, 1.122; PhCH2, Bu, 145°/10-2, 1.4827, 1.040; Et, Me, 150°/1.7, 1.4385, 1.184; Et, Bu, 184-6°/2.7, 1.4402, 1.068; Et, MeOCH2CH2, 200°/2.2, 1.4456, 1.165; EtOCH2CH2, MeOCH2CH2, 154-6°/1 + 10-3, 1.4507, 1.159; EtOCH2CH2, Bu, 145°/1 + 10-3, 1.4451, 1.077; Bu, (2-methylcyclohexyl)methyl, 156°/2 + 10-3, 1.4681, 1.046; (2-methylcyclohexyl)methyl, Bu, 156°/6 + 10-3, 1.4692, 1.045; Ph, Bu, 149°/5 + 10-3, 1.5043, 1.135; Bu, 3-methoxybutyl, 156°/2 + 10-3, 1.4462, 1.060; iso-Pr, Bu, 182°/2.3, 1.4373, 1.0376; Bu, (2-methylcyclohexyl)methyl, 156°/2 + 10-3, 1.4681, 1.046; Bu, diisobutylmethyl, 145°/8 + 10-3, 1.4437, 0.9637. Similarly were also prepared the following esters (b.p./mm., n30D, and d20 given): tri-Et (dibutyl phosphono)tricarballate, 135°/1 + 10-3, (n20D) 1.4488, 1.0953; tri-Bu (dibutyl phosphono)tricarballate, 171°/10-3, 1.4500, 1.0420; N,N,N',N'-tetramethyl-2-(dibutyl phosphono)succinamide, 207°/2.1, 1.4717, 1.079; N,N,N',N'-tetra-Bu analog, 156°/4 + 10-3, 1.4662, 0.980; di-Et [α -(dibutyl phosphono)-benzyl]malonate, 149°/9 + 10-3, 1.4800, 1.0872. [C(CO2-Et)2]2 and (BuO)2POH in the presence of NaNH2 similarly gave (BuO)2P(O)C(CO2Et)2CH(CO2Et)2, an undistillable substance. Diallyl maleate gave 79% diallyl 2-(dibutyl phosphono)succinate, b0.35 122°, while PhCH:C(CN)CO2Et gave 27% Et 2-cyano-3-phenyl-3-(dibutyl phosphono)propionate, b0.05 149°, n30D 1.4870, d20 1.090, and MeCPH:C(CN)CO2Et gave 34% Et α -cyano- β -(dibutyl phosphono)hydrocinnamate, b1, 169°, n30D 1.490, d20 1.084; PhCH:CMcCONH2 gave 78% 2-cyano-3-(dibutyl phosphono)-3-phenylpropionamide, m.

105-6° (from dilute EtOH); fumaronitrile gave 6% (dibutyl phosphono)succinonitrile, b3 170°, n30D 1.4330; di-Et dicyanomaleate gave 76% di-Et 2,3-dicyano-2-(dibutyl phosphono)succinate, an undistillable oil. The products are plasticizers for CH₂:CHCl polymers with AcOCH:CH₂.

- IT 122764-37-8P, 1,1,2,2-Ethanetetracarboxylic acid,
phosphono-, dibutyl tetraethyl ester
(preparation of)
RN 122764-37-8 HCAPLUS
CN Butanetetracarboxylic acid, 2-(dibutoxyphosphinyl)-,
1,2,3,3-tetraethyl ester (CA INDEX NAME)



- IT 122764-37-8P, 1,1,2,2-Ethanetetracarboxylic acid,
phosphono-, dibutyl tetraethyl ester
(preparation of)

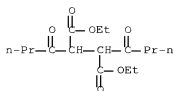
L10 ANSWER 56 OF 56 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1951:16693 HCAPLUS
DOCUMENT NUMBER: 45:16693
ORIGINAL REFERENCE NO.: 45:2984g-i
TITLE: Alkamine esters of
1-aryl-2,5-dialkylpyrrole-3,4-dicarboxylic acids
INVENTOR(S): Walker, Ruth A.; Sickels, Jackson P.
PATENT ASSIGNEE(S): American Cyanamid Co.
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2527165	---	19501024	US 1948-6336	19480204

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- AB 1-Aryl-2,5-dialkyl-3,4-dicarbethoxypyrroles (I) prepared by the Knorr synthesis from aryl amines and diacylsuccinates [(CH(COPr)CO₂Et)₂, m. 81-1.5°] are converted to the Et₂N(CH₂)₂ (II) or Et₂N(CH₂)₃ (III) esters by transesterification or via the free acid (IV). The following are reported (aryl, alkyl, and m.ps. of I, IV, and of the HCl salts of II and III, resp., given): Ph, Et, 61-2°, 264-5° (V), 177.5-8.5°, 114-15°; p-MeC₆H₄, Et, 62.5-3.5°, 241-2°, oil, -; m-MeC₆H₄, Et, -, -, -, oil; p-ClC₆H₄, Et, 83-4°, 244-5°, 180-2°, -; Ph, Pr, 73.5-4.5°, 255-6°, -, 217-18°; p-MeC₆H₄, Pr, 93.5-4.5°, 147-8°, -, oil; p-ClC₆H₄, Pr, 92-3°, 246-7°, -, oil; Ph, Me, -, -, 185-8.5° (free base, b2 260-70°), -. The anhydride and mono-Et ester of V m. 112.5-13.5° and 144-5°, resp.
IT 70360-25-7P, Succinic acid, 2,3-dibutyl-, diethyl ester
(preparation of)
RN 70360-25-7 HCAPLUS
CN Butanedioic acid, 2,3-bis(1-oxobutyl)-, 1,4-diethyl ester (CA INDEX NAME)



IT 70360-25-7P, Succinic acid, 2,3-dibutyryl-, diethyl ester
(preparation of)

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS
RECORD (1 CITINGS)